

S A F E T Y

SEPTEMBER
1950

Two Sections - Section One

E*ducation*



The **NATIONAL SAFETY COUNCIL**, the heart of the safety movement in America, collects and distributes information about accidents and methods for their prevention. Organized on a nonprofit basis, the Council promotes safety in industry, traffic, school, home and on the farm.

SAFETY EDUCATION is the official publication of the School and College Division of the Council.

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SAFETY

Volume

XXX

No. 1

Section

One

E^{Education}

• • A MAGAZINE FOR TEACHERS AND ADMINISTRATORS

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OF
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Football Injuries change, too!

by JOSEPH P. DOLAN

THE inherent value of sport far outweighs the dangers involved. An individual is safer on the field of 1950 football than in many areas of our mechanized society.

But football, American style, as played today, has not always enjoyed its relative safety. Up until the year 1931, a certain lethargy regarding athletic injuries and their prevention was quite evident in the American school system. But during that year's football season, the toll attributed to football amounted to 50 deaths. The game was attacked by the press, excoriated by reformers, and defended and extolled by the players and those immediately concerned.

The American College and University Football Coaches association appointed a committee to investigate football injuries. The principal purpose of this committee was to investigate and advise on problems of rule changes and suggest protective clothing.

The committee tapped many sources of information in an attempt to gather definite statistical material. The manufacturers of football equipment, trainers, team physicians, coaches, physical educators, athletic directors, the press and members of the American Orthopedic Society and the Society of Neurological Surgeons were solicited for information and constructive ideas. But there still exist problems.

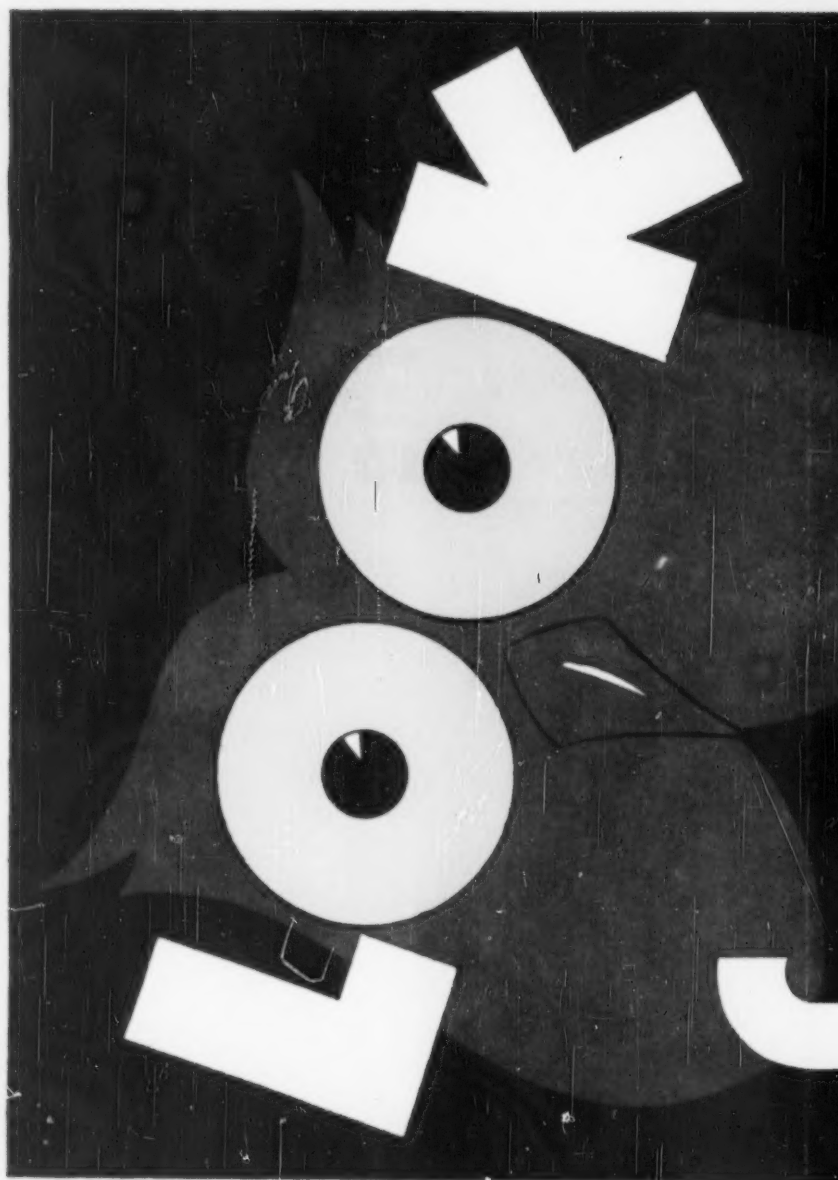
While there is a certain element of physical hazard in football (or any other physical effort), the inherent dangers of football have been exaggerated. The majority of football coaches have never seen a fatality, and men

In the days of the "flying wedge," grandpa was a la mode for the American version of Rugby. Fandom on any Autumn afternoon would probably mistake yesterday's uniform for an Atomic age version of what's new in uniforms for officials.



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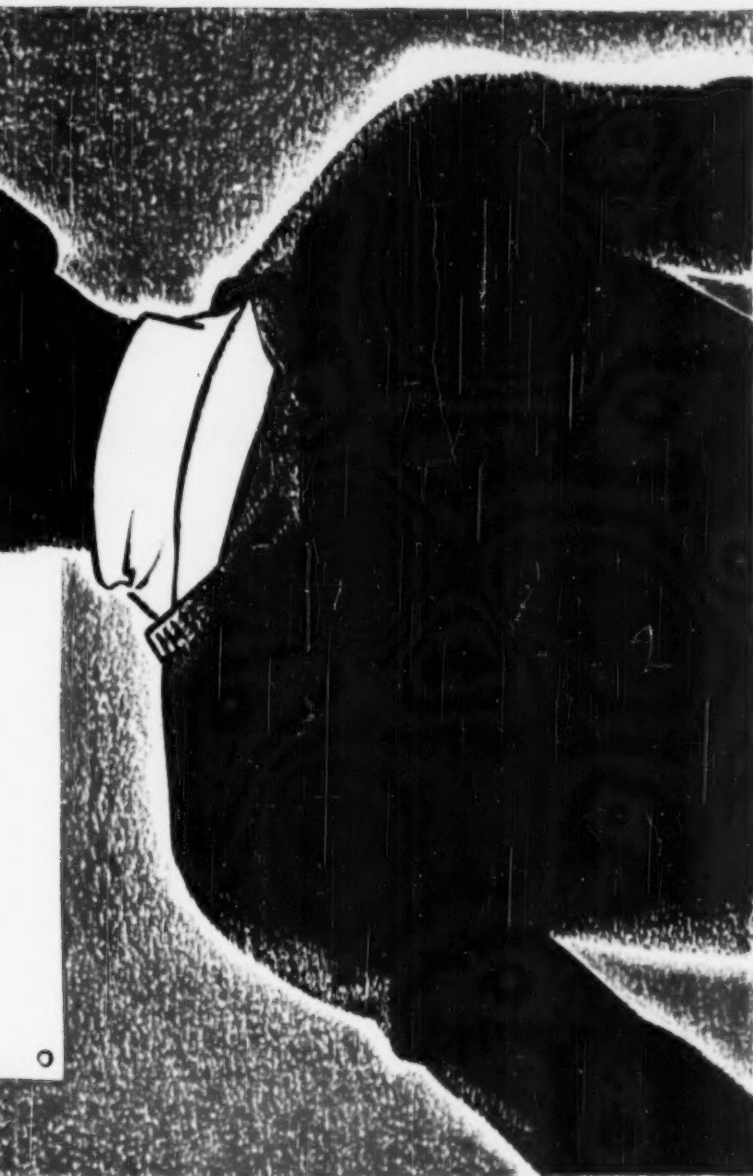
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such as A. A. Stagg and Michigan's Fielding Yost, associated with football for more than a half century, never saw a fatality caused by their sport.

When we consider the millions of accidental injuries which occur every year in the course of ordinary life activities, the list of football injuries seems less appalling than at first glance.

Vivid Picture

But if the reader has ever witnessed one gridiron contest, he possesses in retrospect the vivid picture of the injured athlete being removed from the contest. In a study of these injuries, especially over a period of years, we find that certain injuries have been prominent at one time but have disappeared and been replaced by a new type of injury. Fifty years ago, during the era of the flying wedge, the most feared injury was the brain concussion or broken neck; today's most feared injury is the painful and exasperating knee injury with its many months of disability. But let us look at the history of this strange phenomenon of football injuries and their changing with the passing of time, rules and styles of play.

Following the first American Intercollegiate football game at New Brunswick, New Jersey, between Rutgers and Princeton (won by Rutgers), several persons had to be hospitalized. The first recorded football injuries were for the fans—not the participants. It all happened during the second quarter of that game. The score was 1-1 (a touchdown counted one point at that time) when a punt rolled near the sidelines where a Princeton and a Rutgers man converged upon the ball. So intent was their concentration upon recovery of the pigskin, and so swift their speed, that both reached the ball at the same time via the flying route. Unable to check their gathered momentum, they crashed into the fence, scattering spectators in all directions with many resulting injuries to the fans.

An offensive tactic to which we can lay blame for many serious football injuries was the Princeton-Wedge of the year 1884. Princeton was playing Pennsylvania, and the Tiger's quarterback, frustrated at Penn's fine defensive effort, decided to use a "V" protection if he could receive a kickoff or punt. Needless to say, his backs ran wild that day, jumping inside the angle lines of their block-

ers' (arm-linked) wedge and following its apex for great yard gains. The only method to stop the wedge-play was to throw one's body headlong into it so that fellow athletes could make the tackle. Many backs were broken in this manner, also necks, arms and legs. But one of the greatest dangers involved here for the defensive players was kidney injury.

In the year 1902, Harold Weeks, a Columbia halfback, came up with the flying hurdle, the most dangerous offensive play since football was conceived. Two backfield mates formed a chair — cross-hand-safety-seat; Weeks put his arms around their necks; his two Columbia ends dropped back, and as his two teammates got under way toward the line, the two ends would grab Weeks by the hips and catapult him across the line of scrimmage. This play was legislated out as the result of a President's intervention. His name was Theodore Roosevelt.

On December 24, 1905, President Roosevelt, attending a meeting of 28 college athletic directors in New York city, demanded that the objectionable offensive tactics of the "hurdle" and the "wedge" be forever legislated out of football or football would become extinct. Incidentally, on this same date, the forward pass was born.

Cantilever Pads

From 1905 until the year 1925, the hue and cry against football concerned the brain concussion, the shoulder fracture and the sprained ankle. The year 1927 saw the appearance of a new type of shoulder pad featuring a mechanism referred to as the "cantilever." This mechanism was the result of medical guidance. The old shoulder pads had merely assuaged shoulder pain while in forced contact with an object in motion. The "cantilever" type of pad (and all pads for shoulders have this today) merely arched the pad much higher than the shoulder, and placed the weight upon three parts of the anatomy—the clavicle, the scapula, and the acromial process. Before this, pressure had been absorbed by only one of these three. The cantilever operates on the same principle as the automobile's knee-action—the shoulder pad moves, but the shoulder itself doesn't. The broken collarbone and resulting fractures in the area of the shoulder began to disappear.

During the 1930 season there appeared a football cleat that was a drastic deviation

from the old standard rectangular cleat of leather. The new cleat was round, made from hard rubber, and screwed into the sole of the football shoe. This disc-like cleat allowed the foot a slight bit of lateral slippage when hit from a 90 degree angle and even allowed the shoe to roll under the athlete at times; and so, ankle injuries began to disappear. The rectangular cleat, placed at right angles with the length of the foot, was excellent for traction on fair days and dry turf. But on wet days, this rectangular cleat did nothing but collect mud. It was for this reason that the oval rubber cleat was adopted. But its greatest service was in the smaller number of ankle injuries following its adoption.

The last measure of surcease from injury was thought discovered in the year 1941 when a helmet company came out with the suspension helmet. The helmet is suspended on athlete's head by webbing and sweatband, like that utilized in the U. S. Army's steel helmet, and allows the exterior shell of the helmet to gather the blow and to transmit the blow throughout its surface. This leaves the athlete with nothing more than a scuffed exterior of plastic. The objectionable feature of this new suspension helmet lay in the fact that its plastic covering made its rock hard offensive armor an open invitation to chip defensive tackler's teeth, if the ball carrier knew how to utilize the shocking power. On the good side of the suspension helmet ledger, we can definitely write with positiveness the almost total disappearance of brain concussion, where and when the new helmet is utilized.

But into football's ranks has crept a new and menacing danger, one that defies solution at present, one that put in an increasing appearance from the year 1939 until the present. I speak of the knee injury. Statistics bring out the rising incidence of derangements of the knee in football competition. At Purdue, there were sustained 12 knee injuries between the years 1930-1940. Between 1940-1950, Purdue football players sustained 60 knee joint injuries with complicated meniscuses, ligaments and allied tissues. Therefore, we can safely assume that knee injuries are the new problem for prevention in football.

Of these 60 reported knee injuries, none was permanent. All responded to treatment. The greatest problem in knee injuries lies in the long period of recuperation (usually 4 to 10 weeks) with the resulting reluctance

on the coach's and athletic director's part to allow the injured athlete to return to competition. Hence, the injury becomes not only physical but mental, as disappointment and frustration set in.

From past experience, American football coaches believe that the problem of the knee injury will be solved in the near future. This aggravating injury to one of the most important angles of locomotion in the body has not limited itself to any one section of the country; it has attacked every squad in the nation. This injury is the newest challenge to football and the authorities who control and guide the game. With scientific investigation, and with an educational desire to improve the game from the standpoint of safety for the individual participant, the knee injury presents the newest battle between man and his continual fight against the undesirable effects of his pleasures.

Light in weight, tops in protection, best characterize today's football protective equipment. The tempo of the game has speeded up, but modern equipment provides — cantilever shoulder pads, taped ankle supports, kneepads, rubber-cleated football shoes, ridgeless football helmets.



Are YOU coming?

THE final plans of the 38th National Safety Congress and Exposition, to be held in Chicago—October 16 through 20—are now being completed.

As in previous years, the bulk of the School and College sessions will be held in the Morrison hotel.

This year, several *firsts* are being added to the varied programs of the School and College division.

One of these firsts is the education exhibit sponsored by the School and College conference throughout Congress week. This exhibit will display instructional aids and current safety publications. The latest trends and techniques in safety education will also have a prominent place.

Another first is a joint meeting with the American Academy of Pediatrics. Prominent speakers in the field will speak on their approach to accident control through practice and research. Another speaker will discuss the challenge of child accident prevention.

A second joint meeting, conducted for the first time this year, will be between the Driver Education section and the Traffic and Transportation division of the National Safety Council. The school bus problem, and the problem of driver attitudes will be discussed at this meeting.

Monday afternoon, the business meeting of the Safety Education Supervisors' section will be held, followed by their general session which will discuss the contribution of educational thought to safety.

The gala reception, always a highlight of the National Safety Congress, will be held on Monday afternoon. All School and College delegates, their friends and guests are invited to meet for a time of fellowship.

Monday evening another session of the Safety Education Supervisors' section will discuss how students can be kept safe at school while they are learning the three R's.

The secondary school sessions will be conducted on Tuesday, beginning in the morning and continuing through the afternoon.

The greater part of the secondary school meetings will be in two group work conferences.

Also on Tuesday afternoon, the joint committee of the American Vocational Association and the National Safety Council will conduct its meeting on school vocational education.

This year, the special film showing for School and College delegates will be held on Tuesday afternoon. Only films which have been produced during the past year will be screened for those present.

Wednesday morning and afternoon, the Elementary School section will conduct its meetings. After the general session, the group will split into three smaller discussion groups. The afternoon meeting will bring together these groups again to summarize the answers to the questions discussed in the smaller group meetings.

Two work study groups on driver education will be held on Wednesday afternoon. Later in the afternoon, there will be a business meeting of the Driver Education section.

Higher education committee meetings will be held on Thursday morning.

Thursday afternoon will bring a general session on working together for greater safety in all phases of school safety.

Last, but by all means not least, no one can overlook the fun fest which is held near the end of the strenuous week of meetings as a grand finale for most of the programmed meetings of the Congress.

This general outline of School and College sessions, although sketchy, will indicate the highlights of the scheduled program for Congress week. The complete program will be printed in the October issue of SAFETY EDUCATION.

We, of the School and College division, National Safety Council, would like to meet you at all of the sessions and gatherings during the week of October 16 through 20.

Are you coming?



He LOOKED Like a DEER!

by JOHN S. ROSE

Like most armchair outdoorsmen you live to a great extent in dreams. You tend to anticipate the coming season by reviewing the pleasant memories of last year. The mind fills with little self-promises to try a certain method again or to determine that you will never repeat a blunder in woodsmanship.

All things considered, last year's trip was a lot of fun. But you missed on your one chance at a buck. You saw the big brute on the first day out and decided to wait until he moved closer, perhaps to the clearing where he would have offered an unobstructed shot. The wind was right and the buck was sufficiently at ease to pick up an occasional acorn from under the wet leaves of that oak slope. Just about two more steps and his neck would run into that 150 grain slug. The front sight waited almost patiently at the edge of the laurel clump where he would appear. Why wouldn't he come out? The cursed laurel was more than enough to cover his outline! Then the rack dropped out of sight! . . . Another acorn? . . . No, just a shot of that extra something the big old bucks seem to have and that makes them big old bucks. He simply vanished! Later you saw how he has eased down the little hidden gully which started just behind that blasted laurel patch.

That buck was a pretty sight slipping through the shadows!

Now the waiting is over. It's next year! You are in Dad's car with the others and almost in sight of the farm where you will stay. Dad really is a good egg, hardly obvious

YOU work five or six days a week at a monotonous task which keeps you well away from densely wooded sections. You divide your vacation between a family holiday and a few "strictly stag" days with Dad during the deer season. You spend two hours in preparation for every hour on the hunt and you spend it other ways too.

Licenses are up a little more this year, and ammunition . . . wow! But as anyone who reads the magazines knows, it is merely sensible insurance to buy one or two extra boxes of ammunition for sighting-in purposes. The many other items bring the cost to no trifling total. But that's okay. It's only once a year.

MR. ROSE is a member of the legislative service of the National Rifle Association of America, Washington, D. C.

as he asks in front of the others, for your opinion on bullet design.

The dark of the next morning finds you eager and fit, working your way up the noisy stream toward the ridges. There, if your instinct is sound, the deer will climb after day-break when the bottomland hunters start cracking twigs and raising a commotion.

As the steep grade sets your teeth and your wind comes in long even breaths you smile sheepishly. Your lips form the words "This is it." This is about as much adventure as anyone can hope for.

Hard going now. You feel the effect of that heavy farm breakfast as you trudge along.

What's that! . . . The crashing off to your right drives the fatigue away as you listen to two—maybe three—deer move away in the inky dark. You decide that they ran only 50 yards or so. They'll probably walk another 100 and resume feeding. Your goal is not much farther. Perhaps you will meet up with those deer again.

Nearly an hour later in the grey early light you make out the big boulder which caught your eye last season. From the top you should be able to see any crossing deer within 80 yards. It's already bright enough to shoot on the ridges and they will be sounding off down below as soon as the light reaches them.

The thin note of a signal whistle echoes up in advance of an answering chorus. The distant drivers begin beating toward the hunters who were lucky enough to draw stands on the first drive. You scramble up the slope in the rear of the boulder as quietly and fast as your untrained legs can manage. Check the sight and chamber the first load of a full magazine as you slide into the shadow of that runty scrub oak.

Now you feel for the first time the dawn breeze. A convulsive shiver goes over your sweaty back. You fight to keep a sneeze down. Who knows. A real spooky buck may take out for the ridge at the first whoop and holler. He might at this moment be watching you from behind a thin screen less than 100 yards away.

Then you hear it, the faint but definite snap of a twig! Your mouth is open again, this time to breathe more quietly and hear better. You wonder if it was just a squirrel on a dead limb. Twenty minutes becomes an hour twenty and you wonder if you really heard a twig snap. As if to answer, the click

of one stone against another comes through from that outcropping on the nose of the ridge just below your stand. You feel a smug look steal over your face when you realize that no squirrel moved a stone of that size.

Then you see it. A fat little doe directly in front of your stand. And another, slipping along like toys pulled by strings through the cover. The first one pauses and looks back as the sounds of the drive come up stronger. The louder sound of distant rifle fire is almost expected by deer and man. Both react immediately. The does move up and over the ridge with a quickened step. You tighten your grip on the stock of your rifle. It is wet with rain.

You hear two quick shots, then one more of a different caliber! That could mean that Dad and the others had two bucks on the ground. Here comes more rain. Where is the wary buck that is supposed to follow in the wake of those less cautious does? You try now to think of those convincing arguments you used last night in opposition to the drive, where man had companionship, no hard climbs, a nearby car or truck for shelter in heavy weather and apparently, a few legal deer. Can you really be white-washed again this year.

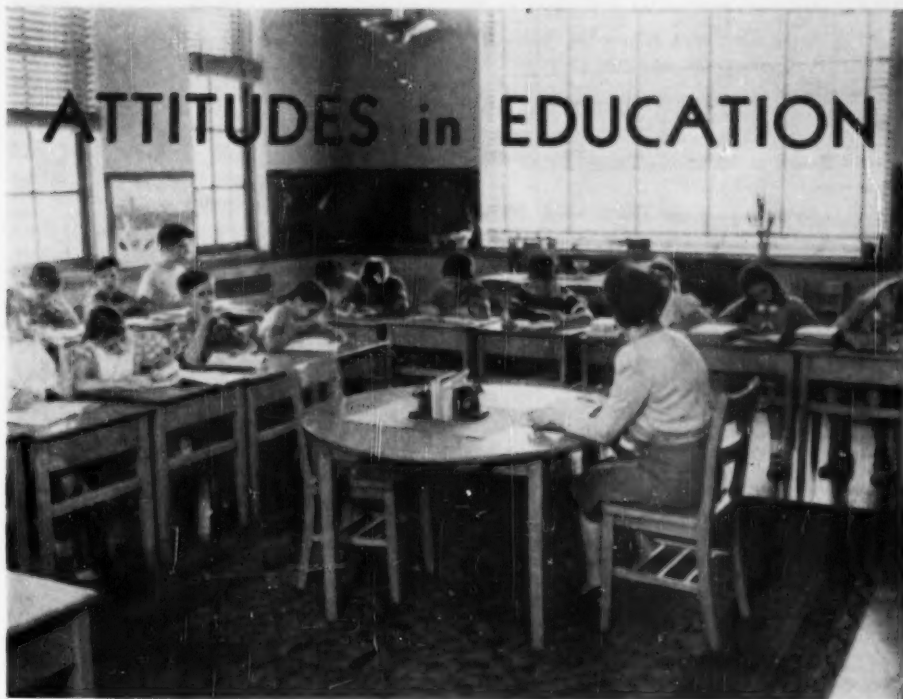
There he is—or was! For just a second the big rack appears above a thick neck. Then it falls out of sight. Even now portions of his faint outline show at intervals as he runs easily toward a crossing point on your left. This fellow is wasting no time. He will have to be hit as he crosses the little shale ledge.

In that instant, the long climb, the year-long dreaming, the expense, the shots in the valley, and Dad's patronizing gestures all combine into a burst of desire to drop that deer. Just after you hear him spook into a bounding run you see the top half of his shoulder and neck rise above the critical shale ledge and into the sight picture. The rifle hangs back onto your rain-soaked shoulder. The tension passes a little now as you run and climb down from the boulder and across the little clearing to the bare patch of shale. You've hit him—and good. The thought that confidence is re-established makes you grin openly as you run over the rough ground.

He won't be far away after that sudden drop and the little squealing sound. You can picture Dad's face as you hang that baby up at the farm tonight. Those shots in the

(Please turn to page 38)

ATTITUDES in EDUCATION



by JAMES W. MANN

PERIODICALLY I become concerned about some of the prevalent attitudes toward safety education. Indifference heads the list, closely followed by the habit of treating safety education as an academic subject. After that I should place the matter of teachers worrying about safety education displacing "more important matters" in the curriculum. Finally, I wish it were possible for every teacher to catch the vision of true integration of safe living habits into the daily habit conduct of every child. After settling on a suitable definition of *curriculum*, it may then be possible to clarify each of these concerns in turn.

If *curriculum* means separate subjects which children must learn, then safety edu-

cation is indeed an intrusion into the "sacred fold" and as such will have little meaning in terms of safe living. But if *curriculum* is interpreted to include all learning and growth experiences occurring under the guidance of the school, then the problem of safe living falls naturally within the scope of the child's day. Let us assume that the latter is the case.

By *indifference* to safety education, I mean not studied indifference to an important educational item but rather a matter of setting values on various curricular items. The school program is so crowded with items, all of them important, that selection becomes a matter of expediency rather than of philosophy. The skills must be learned; they come first. Then come innumerable activities accepted formally as part of the curriculum, many of them handled by "special

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teachers," and for which schedules must be made. Then come the individual items in the experience of different children—music lessons, speech, hearing, special help of various kinds. Small wonder that safety education seems but another intrusion into the day of teacher and child.

When, however, safety has been "accepted into the curriculum," it moves into a position of preference over other possible items. (There are still only so many hours in each day.) A new danger arises at this point—that safety education will then become an academic matter methodically cared for in its turn with 15 minutes a day at 10:15 each morning. Like brushing one's teeth, it becomes a habitual task performed and forgotten until the next time it is due. Furthermore, under such treatment, teachers are likely to resort to more formal materials, some of which may present the same obstacles to functional learning as drills and routines which elicit resistances to learning and require artificial motivations. There is the danger of academic treatment.

The teacher who worries about the amount of time taken up by safety education is not in a frame of mind to make such training functional. She is worried either that it will take too much time (from academics, etc.) or that she is not giving it the amount of time specified by regulation. Either approach values the quantitative over the qualitative and inhibits true integration. Perhaps we can understand the more functional method of approach by a few specific suggestions.

First, I believe that *timing* is all-important. When a child trips over an object left carelessly out of place, narrowly misses hurting himself with a sharp tool wrongly held, or sustains a gashed knee from broken glass on the playground, the time for the relevant safety lesson is *at that moment*. Even if Miss Jones has just arrived to help with an art project, the time is still *now*. If psychology has taught anything about learning, it is that the emotional set or attitude is all-important. One learns best about danger when danger is imminent; otherwise it becomes an academic discussion. One "strikes when the iron is hot."

Timing makes possible the *dramatization* of safety concepts; by this I mean definite, concrete, dramatic steps toward alleviating situations or potentially dangerous situations. Children learn effectively when they can act out and emotionalize a situation; this is par-

ticularly true of safety problems. Thinking is based on feeling and acting, and habits are formed more through pressure of emotions than through dull routines. A dramatic lesson in safety becomes embedded in the child's feeling and attitude, and will influence behavior long after the conscious memory has dismissed the incident.

Consideration of the feeling and emotional side of learning suggests a further important principle: safety education must cultivate attitudes for *future* action. The learning of today must create an attitude for tomorrow. Will the bicycle rider of today, for example, approach automobile driving later with an emotional set toward responsible action? Does practice in safe living in a classroom make for action toward safe living in the home when the child becomes a homemaker? Does general consideration for others practiced at school result in adult behavior which is thoughtful, therefore, more safe?

Finally, consider one further important avenue to safety education open to every classroom and school which values democratic practices and democratic living as an actuality. Children may develop wholesome attitudes toward safe living through *participation*. If given responsibilities in the planning, as well as in the execution of safety measures in the school, they are living democratically in the present and are also preparing for democratic living in the future. What they plan, they will support. If the experience is satisfactory, they will appropriate these learnings as a permanent part of their behavior pattern. Thus participation is essential to making safety education of permanent value.

I believe that safety learnings can be integrated into the usual school program without stress or loss of "valuable" time, if the time devoted to them is used efficiently. Proper timing, dramatization, participation, and other means make the learning quickly and permanently effective without spending time on drill and routine practice. Furthermore, if learning is made effective through use of positive feelings and emotions, time is saved subsequently by making it unnecessary to relearn the fundamental lessons. To me the most effective safety education is that which is practically indistinguishable from other elements of the child's school living and which in turn results in a measure of individual responsibility in each toward his own conduct and toward the safety of others.



TRAINING AIDS Add Zest

by AMOS E. NEYHART

"HOW can I make classroom work more interesting?" high school driver education instructors often ask. They tell me: "It's no problem motivating students out in the car, but it's so difficult in the classroom to arouse and maintain interest."

One instructor told of offering driver education for one semester and dropping it because students weren't interested. Another wondered if it is possible to offer the classroom part of driver education without practice driving and still hold student interest.

In the growing enlightenment on how best to conduct driver education courses, there is no question about how to answer such teaching problems. *The answer becomes apparent the moment a check is made on what the instructor and students do in the classroom.* It generally turns out to be merely

reading and discussing text materials without utilizing the many practical, effective visual aids and mechanical driver education aids that have been developed especially for these courses and are readily available.

My long-held opinion is that high school students learn faster, develop greater interest, have more intense and vivid impressions and get a clearer picture of what the instructor is trying to "put over" if students can operate, handle, maneuver and experiment in the classroom with devices and gadgets which bear a close relationship to actual driving. Well-selected movies and slide films have their place, too, in building interest and developing desired attitudes.

Two recent statements on this subject compelled my attention and confirmed this opinion. One is an incisive paragraph in the Ohio State University Newsletter by Edgar Dale:

"The school is changing. It is shifting from an over-emphasis on memorization,

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Use of models coupled with charts ties down the lesson and makes obscure things clear. These instructors are working out techniques for classroom use of this combination of a demonstration model engine and chart.



ABOVE—This Dayton school has developed a good laboratory setup for demonstrations and testing. Note the traffic demonstration board, reaction time test, various tests of visual acuity and the cut-down model, a gift from one of the manufacturers.

BELOW—An ingenious Cleveland teacher livened up his classroom work by developing this toy car model for demonstrating turns, steering and parking.



on 'knowing about', to thoughtful experiencing. To make this shift intelligently requires patience, wisdom and educational engineering."

The second statement is contained in a booklet prepared for the visual aids workshop of the Department of Agriculture Extension Service entitled: "What Research Shows about Visual Aids." This excellent material cites various types of visual aids and emphasizes how they can help us in teaching. Some of the major points that apply so well in our case of teachers experiencing difficulty in holding interest have been gleaned as follows:

Training and visual aids intensify impressions, vitalize instruction, give pictures of experiences with concrete things, arouse and maintain interest by attracting the attention of the learner, motivate, develop and change attitudes, supplement other learning, vary teaching, clarify, serve as reminders and save teaching time.

Such aids are used singly or in combination according to: (a) the type of behavior change it is desired to bring about—learning some skill, gaining information, or changing some attitudes in the desired direction; (b) the nature of the subject matter being taught; (c) the availability of the various types of aids; (d) the relative cost of various types of aids; and (e) the familiarity of the teacher with these materials and how to use them and his originality in devising and using home-made aids.

But this caution caught my eye and I would repeat it and repeat it. "But they are only aids. Their use requires skill on the part of the teacher. There are effective and ineffective ways of using them."

First, it is my strong opinion that all driver education teachers should become familiar with the various types of teaching aids available; second, they should personally experience each of the psychophysical types of driver testing devices to be able to administer the tests to students and interpret their test scores; and third, they should learn how to utilize these aids at the proper time and in the most effective manner in high school classes. Teachers acquire this know-how through attendance at one of the many 40-hour teacher preparation courses being offered, or by participation in teacher conferences devoted to newest techniques of administering driver education courses.

Take the more than a score of psychophysical driver testing devices now available. They are invaluable in bringing about in the minds of boys and girls: (a) a realization of the effects of physical, mental, and emotional characteristics on drivers and pedestrians; (b) a recognition of personal deficiencies which may affect traffic practices; (c) knowledge of the necessary steps to remedy, or compensate for deficiencies.

High school teachers the country over have found these devices useful in emphasizing the many personal factors involved in driving. Every student is keenly interested in his own test results; and the tests never fail to motivate the students to sincere participation. Included are devices to test reaction time, visual acuity, depth perception, glare acuity, field of vision, steadiness, color perception, eye dominance.

The instructor can thus give definite meaning to what otherwise might be merely an abstract, somewhat colorless classroom discussion of the relationship of physical fitness to safe driving. With the devices, the whole subject comes alive and the students get vivid concepts. They come to realize that many other drivers on the highway are likely to have various and serious deficiencies for which they must make proper allowance.

These experiences with concrete things encourage defensive driving, or driving which will compensate for the faults of others. Is this not a persuasive way to develop the attitudes youthful drivers need to acquire and teachers desire to develop?

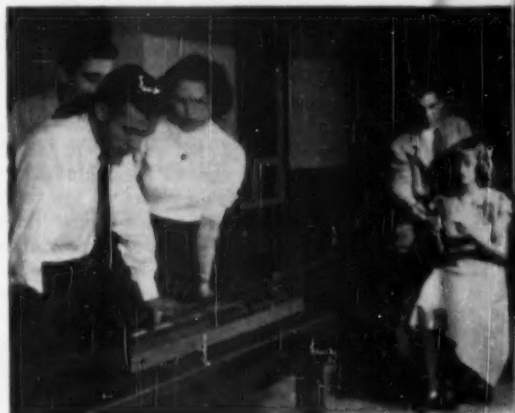
Take the new inexpensive working models that have been developed to demonstrate the operation of the clutch, the universal joint, the piston and valves, the differential and the steering mechanism. They answer the many student questions of *What, Why and How*. Used in the classroom to demonstrate text materials on how the automobile runs, they make the instruction lively and visual. They supplement printed illustrations and satisfy the students' curiosity to handle and to experiment. With the steering demonstration device, the mystery of how to park in four easy steps becomes clear and understandable as the teacher and then the student maneuver the gadget on the desk top.

Girls, many of whom find mechanical operation of parts of the engine unintelligible, and thereupon lose interest in mere

(Please turn to page 34)



These boys are proud of the homemade, inexpensive driver testing devices they developed for their school. Building and using them made their interest in the driver education course keener.



ABOVE—One of the ingenious, practical tests that demonstrates the quality of a person's distance judgment, the lack of which means trouble in passing cars or in close quarters.

BELOW—An easily-used simple reaction time device that challenges interest. The student reacts to red and green lights shown at top of the device. These are automatically controlled.



The Leading Cause

by JENNIE SPADAFORA

ACCIDENTAL deaths of children 5 to 14 years old numbered approximately 5,500 in 1949, or 6 per cent less than in 1948. The rate of 22.3 deaths per 100,000 children was the lowest rate for any age group, and was 8 per cent below the 1948 rate of 24.6.

Nevertheless, accidents continue to be the leading cause of death among young people. In 1948, accidents claimed six times as many lives in the 5-to-14-year age group as heart disease, the second cause of death; and eight times as many as pneumonia, the third cause. Accidents caused more deaths than the 10 most important nonaccidental causes of death.

Motor-vehicle fatalities, 2,100, decreased 10 per cent from 1948. Yet these deaths exceeded any other class of accidental deaths among children 5 to 14 years of age. Approximately half of the motor-vehicle fatalities in this age group were due to pedestrian accidents, and 17 per cent were deaths resulting from collisions between bicycles and motor vehicles.

Public nonmotor-vehicle deaths among children 5 to 14 years old totalled approximately 2,000, an increase of 8 per cent over 1948. This was the only class of deaths in 1949 not to show an improvement over the

previous year. Deaths from burns and drownings showed some increase over 1948, but most of the increase occurred in unclassified accidents.

The home accident fatality record for children 5 to 14 years old indicates a marked improvement over 1948. Deaths decreased 17 per cent, from 1,500 in 1948 to 1,250 in 1949. Decreases in deaths were largely in fatal burns and unclassified accidents, but fatal poisonings and falls also were less numerous than in 1948.

Deaths from occupational accidents among children 5 to 14 years old numbered approximately 150 in 1949.

The 1949 accidental death toll for persons of all ages was 91,000. This was a reduction of 3 per cent from the 1948 estimate of 94,000, based on the Sixth Revision of the International List of Causes of Death. Prior to 1949, deaths following accidental injury were almost always classified as accidental deaths. Now, according to the Sixth Revision, the underlying cause of death as stated by the physician is selected. This may be a chronic disease, particularly among persons 65 years and over.

The crude death rate per 100,000 population was 61.2. However, if allowance is made for changes that have occurred in the age distribution of the population since 1940, the rate thus standardized, is only 59.5.

JENNIE SPADAFORA is a member of the statistical division, National Safety Council.

THE NATIONAL ACCIDENT FATALITY TOLL IN 1949

	All Persons		5 to 14 Years	
	No. of Deaths	Change from 1948 (6th Rvn.)	No. of Deaths	Change from 1948 (6th Rvn.)
All Accidents	91,000	-3%	5,500	-6%
Motor Vehicle	31,500*	-2%	2,100	-10%
Public Nonmotor-Vehicle	15,500	-6%	2,000	+ 8%
Home	31,000	-2%	1,250	-17%
Occupational	15,000	-6%	150	-25%

*The motor-vehicle total includes some deaths also included in occupational and home. All figures are National Safety Council estimates.

SAFETY IN THE WOODSHOP

Statistics

1. Numerous research studies—based on frequency rates—show that the woodworking area is relatively more dangerous than all other shop areas. This is also true of the tools and machines within the woodshop. A list of industrial education areas, according to accident frequency,* shows: woods, 12.0; metals, 11.0; transportation, 6.6; communication, 5.9; graphic arts, 3.3.

*The numbers following each area represent the comparative rating in frequency of accidents of that particular area as compared with the others.

The Problem

2. Safe practices must always be stressed—in every way possible—in school woodworking shops. Instructors must constantly impress on the students that the *right* way is the *safe* way. Instructors should see that students observe such basic safety precautions as are given in this data sheet, and should, whenever possible, supplement these precautions with practical student suggestions for safety in the woodworking shop.

Safety Precautions

3. Have properly working and well-designed guards on every machine, and always keep them in place when operating. Replace all guards immediately after any repairs.

4. Stop machine and lock the power switch in the "off" position on any machine when oiling, adjusting, repairing, changing knives, etc. Even with the power off, wait until the moving parts have completely stopped. Always use brush or bellows—never the hands, rags or waste—to remove chips, dust, splinters, etc., from machines, after *first* stopping the machine.

5. The instructor should never leave the room while students are operating machinery and the shop should be locked when not in use. Master switches should also be locked.

6. No one should be permitted to use any tools or operate any machine if not completely familiar with them. And always use the right tool for the job. Makeshift tools may cause accidents.

7. Never leave a machine when it is running. Never leave it until it is completely stopped. Someone may not notice that it is running, and be injured.

8. If the machine has both a button and a foot pedal for starting and stopping, use the pedal for stopping only, and place a guard over it when not in use so that it cannot be stepped on accidentally. Use only the starting button for manual operation.

9. Inspect all material to be used for nails or other metal. Don't run stock which contains nails.



Wear well-fitting goggles when grinding, even though grinding wheel has a glass shield.

10. Don't leave waste wood or sawdust on the floor. Sawdust is slippery, and waste ends of wood may trip the operator, causing a serious accident.

11. If safety zones are used, the restrictions set up by such zones should always be enforced.

12. There should be no running in the woodworking shop.

13. Don't talk unnecessarily while operating machines. Concentrate on the work. Don't talk to others when they are operating.

14. Allow nothing to distract attention while operating the machine.

15. All set screws should be of the flush-socket type. Projecting set screws are very dangerous since they may catch on sleeves or clothing.

16. Do not lean on or against machines.

17. Never use hands or a stick to stop a machine's motion after power has been turned off.

18. When working with machines that cut, saw, drill, grind, etc., wear proper apparel for the job. Do not wear rings, wrist watches or bracelets. Do not wear neckties, gloves or loose or torn clothing of any kind. Do wear shirts or jumpers with sleeves cut off or rolled above the elbows.

19. Always wear safety glasses, goggles or face shields when operating any high speed revolving or cutting machines—shatter-proof goggles for grinding, plastic face shields for sawing, etc.

20. Get help for handling long pieces of wood.

21. If two students are working together, only one should operate machine or switches.

22. Handle metal patterns with care; do not slide them through the hands. The edges may be sharp and cause cuts.

23. Do not touch glue pot or glue pot handles when using hot glue, and don't allow hot glue to contact hands, or skin on any part of the body.

24. Wear shoes with thick soles—safety shoes if heavy work is being done. A close-fitting cap should be worn to hold in long hair. A person can literally be scalped if the hair should be caught in moving machinery.

25. Proper ventilation and good lighting of the shop, where there are no shadows and always sufficient light to see clearly, are *musts* in accident prevention.

26. The workshop should be arranged so that there is ample space to use each ma-

chine safely—that is, without danger of persons bumping into, or tripping over, one machine or each other while working on another machine. And no machine should be in line of danger with another, such as a jointer in line of kickback of a circular saw.

27. Have a good accident reporting system and use it. Injuries cannot be stopped unless the real cause of accidents is known.

Housekeeping

General

28. Keep the floor free of oil and grease and any other liquids. Clean up any spilled liquids immediately. They are slipping hazards. Eliminate all possible slipping hazards around every machine by such methods as using rubber mats, cork tile, varnish sprinkled with sand while varnish is still wet, mixture of glue and sand, abrasive paint, etc.

29. Put tools away when not in use.

30. Do not leave tools on the table of the machine. They may fall off and cause toe or foot injuries.

31. Store materials in such a way that they cannot be tripping hazards.

Fire

32. Keep a fire extinguisher readily available at all times. Be sure that it's the proper type for the hazard of that area and that



For faceplate job, saw disc-shaped piece truly round. Piece sawed only fairly round may fly out.

everyone concerned knows where it is and how to use it.

33. Use a metal can with a tight cover for oily rags or waste and for paint rags. Rags should be removed and burned daily.

34. Store flammable liquids in safety-type containers, and store paints, lacquers and thinners in covered cans in metal cabinet. Only a limited amount of these materials should be kept in the shop—enough for active use.

35. Sawdust and wood shavings are fire and slipping hazards. Place scrap boxes near machines and use them.

Electricity

36. Know the location of all emergency switches.

37. All switches must be located at a point where the operator can reach them quickly and without leaving his work.

38. Electric buttons and switches must be of a type which cannot be closed accidentally and thus start the machine. Recessed "stop" and "start" buttons are a good safety feature.

39. Be sure the machines used do not overload wiring circuits.

40. Ground all portable electric tools. And ground frame of all fixed machines run by electric motors.

41. Check all electric cords occasionally to see that they are in good repair.



In using sanding block, hold block firmly and squarely on work, to avoid hand and finger injuries.

Safety Education for September, 1950

Equipment

Hand Tools

42. Safe use of hand tools is covered in Safety Education Data Sheet No. 15—Hand Tools. However, a few general rules are repeated here.

- Select the right tool for the job. Don't use makeshifts; they are dangerous.
- Be sure tools are sharp and in good working condition before using them. Dull tools frequently necessitate the use of additional force, causing accidents.
- Wipe hands and tools clean before use.
- When carrying tools with cutting edges or sharp points, carry them with edges or points facing down. Do not carry pointed or sharp tools in pockets.
- Carry only number of tools which can be managed safely.
- Hand tools to fellow workers handle first.
- Clean tools before putting them away, and store them so they cannot fall, causing injuries, and so they do not become damaged while not in use. Damaged tools are not safe tools.

Wood Jointers

43. Use narrow jointers, if possible. They are safer than wide jointers. A power feed surface planer should be used for wide work.

44. Make sure that guard is in place and operative before starting the machine. Guard should rise and ride on top of the work. Keep both hands on top of stock (*never* over front or back edge) when doing surfacing work on a jointer.

45. Always use a push block when machining pieces shorter than 15 inches. Pieces shorter than eight inches in length should not be used in jointers six inches or smaller, pieces ten inches are minimum for eight- and twelve-inch jointers, and pieces not less than twelve inches for sixteen-inch jointers.

46. Be sure the unused end of the jointer head (part back of the gauge) is enclosed at all times.

47. To avoid kickbacks, don't take a very heavy cut and never stand directly behind the piece being machined. Operator should stand at left side of machine beside the front table. Operator should not travel with work as he pushes it along the machine.

48. Unusual work, such as bevels and chamfers, requires extra precaution because of possible turning of the stock.

49. Keep jointer table free of all material except piece being worked.

50. See that the knives are sharp, in perfect balance, and securely fastened.

51. Stop the machine and wait until the knives stop turning before leaving it for any purpose. If machine has brake, use it to stop machine.

52. The throat of the cylinder should not be deeper than 7/16 of an inch or wider than 5/8 of an inch. Openings between tables and the head should be just large enough to clear the knife.

Wood Planers

53. When handling rough boards, wear leather hand pads, not gloves.

54. If there is no dust exhaust on planer, wear goggles or face shield as protection against slivers and chips thrown back from the head.

55. Don't look into front of machine if board stalls in planer. Face and eye injuries may be caused by flying knots and splinters.

56. Before starting planer, be sure the knives are sharp and securely fastened in the head. Keep feed rolls, chip breaker and pressure bar properly adjusted.

57. "Walk" boards hand over hand instead of sliding them through the hands. Avoid having fingers pinched under or at side of boards as boards are fed into planer.

58. Keep hands away from feed rolls. Guard feed rolls with a wide metal strip or bar which allows board to pass but will keep operator's fingers out of rolls.

59. If feed rolls are segmented and more than one board is planed at a time, select boards of about equal thickness. Otherwise, a thinner board may not be held by feed rolls, and may be kicked back from head.

60. When the heads are running, never use hands to dislodge slivers around them.

61. Keep the outrunning end clear of obstructions and be sure other workers are out of line of the finished pieces.

Circular Table Saws

62. The saw should be equipped with a guard. A good guard is the hood type (with splitter) which automatically adjusts itself to the thickness of the wood stock. Anti-kick-back dogs or cams should also be included.

63. Use sharp saws only and check for wobble before using.

64. Always use a push stick—not the hands—when ripping short or narrow work.

When ripping stock narrower than six or eight inches, the fence may obstruct the hand and cause it to come dangerously close to the saw. This can be overcome by clamping a filler board, with parallel edges, to the table; with one edge against the fence—guide against the other edge.

65. Keep a firm grip on the work, but don't put too much weight against it or crowd the saw. Weight or crowding may stall the saw and lead to uneven operation. When sawing, balance your weight equally on both feet; proper stance will prevent accidents.

66. Always keep the hands out of line with the cut, and, when ripping, do not stand directly in line with the saw. If the job should kick back, abdominal or other injuries could result. A good practice is to wear a kickback apron.

67. Never reach over or around the saw when it is in motion. And do not let hands go back of front edge of saw.

68. When cutting, teeth of saw should extend not more than 1/16 inch above wood.

69. Always use proper blade—do not use a rip saw for crosscutting or a crosscut saw for ripping, and always use a fence when ripping and a guide when crosscutting. When ripping long stock, use a tail man as a helper to remove stock from saw.

70. Dado heads must not be used without instructor's permission. Close throat after use.

71. Do not operate any power saw at other than its rated speed and do not change its balance or tension; the saw's efficiency and safety may be seriously affected.

Band Saws

72. Band saws are safer to operate than circular saws since there is no danger of kick-back and they can be more completely guarded. Both upper and lower wheels should always be guarded.

73. There should be an adjustable guard on the working side of the saw blade between the upper wheel enclosure and the guide rolls. Also, guard blade on back side of saw between wheels. The lower wheel guard should reach the floor so no one can reach under the table and possibly be cut by the blade. Both guards should be kept closed to hold in the saw blade in case it should break and to prevent accidental contact with either wheel. Guards should be hinged to permit changing saw blade.

74. See that upper and lower guides are properly adjusted. Otherwise, saw may run

in an unnatural position, which will, in time, crack the blade.

75. Do not use a cracked saw blade. A blade that "clicks" as it passes through the work is usually cracked and possibly ready to break. Turn off the machine and change the blade. If a blade breaks, shut off the power and wait for the machine to stop completely before attempting to remove the broken blade.

76. Keep blade at proper tension to avoid breaking it.

77. Do not stop a band saw suddenly, and do not stop saw by forcing a piece of wood against side or cutting edge of blade after power has been turned off. Either practice is dangerous because it may snap the blade.

78. If the work binds, don't attempt to back the work away from the blade while the saw is running. Stop the saw to back out work.

79. Do not cut cylindrical stock with a band saw, and don't turn small radii with large blade.

80. Use supporting block in back of work when cutting small or thin pieces.

81. Keep saw evenly and accurately set.

Jig Saws

82. Attach blades properly—to cut on downward stroke—and keep hands well away from the blades.

83. Set threshold or hold-down rest on stock.

84. Check adjustments by hand-revolving the saw.

85. Make turns carefully and don't turn small radii with large blades.

86. Plan cuts so "backing out" of curves will not be necessary.

Grinders

87. Always use goggles when grinding and be sure they cover the eyes properly. This applies even if wheel has a glass shield.

88. Use the face of the wheel only, unless it is designed for grinding on the side. Otherwise, side pressure may break the wheel. And, use entire face of wheel to avoid grooving it.

89. All wheels should have a protective hood. Do not grind unless there is one on the wheel.

90. Stand to one side out of line of the wheel when starting it up, especially if the wheel is new.

91. Let the wheel warm up before using it heavily; the work should be fed gradually. Using too much pressure or striking the wheel suddenly may cause it to break.

92. Keep the tool rest from 1/16 to 1/8 of an inch from the grinding wheel. Too much clearance may cause the job to jam the wheel and break it.

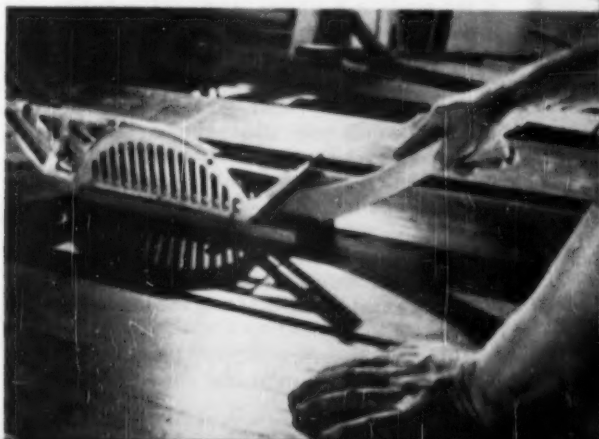
93. Do not set the tool rest while the machine is in motion, and wait for the wheel to stop after the power has been shut off. Do not attempt to stop wheel with hands.

94. Never use a wheel if it has a lower rate of speed (maximum revolutions possible per minute) than the r.p.m. of the spindle.

95. Stop wheel if it chatters or vibrates excessively. This may be a danger signal that the wheel is not properly balanced or not attached securely to spindle. Dress wheel, and if wheel still chatters, replace wheel with a new one. Dress wheel with dressing tool made for that purpose.

96. When replacing or mounting a grinding wheel, be sure that it is in good condition; give wheel "ring" test. (Suspend free and clear and tap gently with a light implement,

Use push stick for short or narrow work and be sure guard is in place and working properly before starting.



such as a wooden screwdriver handle. If wheel is sound, it will give a clear, metallic tone when tapped.) Don't force wheel on the spindle. Doing this may crack the wheel. On the other hand, a wheel must not fit too loosely or it will run off center. Use compression washers when mounting a wheel, and check the nuts on both ends of the spindle to see that they are tightened properly. After mounting, turn the wheel by hand to see that it runs free of the tool rest and protective hood. Let wheel run free for a few minutes after mounting.

97. Hold the job against the grinding wheel with a firm grip so that it will not slip out of the hands and cause the hands or fingers to come in contact with the wheel. Don't wear gloves or use a rag to hold the work. Either of them could get caught in the wheel and injure fingers or hands.

Shapers

98. Shapers are extremely dangerous and should either be operated by instructor or under his very close supervision. Instructor should examine all setups before machine is started.

99. Since shapers perform a variety of work, each shaper must be equipped with a guard best suited to the nature of the work being performed. These guards may be: vertically adjusted guard, hinged guard, pressure guards, and ring and cap guards.

100. Set up shaper so wood covers blade.

101. Provide all double spindle shapers with spindle stopping and starting device for each spindle.

102. Use one-piece cutters if possible.

103. Remove all blades from shaper spindle if one blade must be removed. Otherwise, if the machine is started up accidentally, remaining blades will be hurled from spindle.

104. Seat all knives carefully before tightening and be sure they are sharp and in perfect balance.

105. Do not use short knives, because shaper collars will not get sufficient bearing to hold knives securely. Knives must extend back at least two-thirds of the length of the grooves.

106. Run material *against* direction of rotation of spindle, and never "back up" on a cut. Take material away from the head and start again.

107. When starting shaper, apply power in a series of short starts and stops to bring

spindle up to operating speed gradually. Listen carefully for chatter and watch for other evidence that knives may be out of balance.

108. Don't take deep cuts, and don't feed rapidly.

109. Use fence and pressure bar whenever possible.

110. Watch out for wood with cross grains or knots. They could cause the hands to be thrown into the knives or cause kickbacks.

111. Do not rest hands near edge of material being cut, and on material eight inches or less in width, use a jig or holder with handles.

Woodworking Lathes

112. Be sure stock has no checked ends, loose knots or insecurely glued joints, and be sure stock is not out of balance with lathe.

113. Set tool rest slightly below center line of stock as close as possible to the stock to prevent catching and/or throwing of tools. But be sure the stock clears the tool rest; check this clearance by revolving the stock by hand before turning on the power. Do not adjust tool rest while machine is in motion.

114. To avoid slipping, imbed centers properly and clamp the tailstock securely. Keep the tailstock screws tight.

115. Keep faceplate screws tight.

116. Remove tool rest when sanding.

117. Operate the lathe at its slowest speed until the stock is cylindrical. Use slow speed, even after truing the stock, on large diameter cylindrical faceplate turnings. As a general rule, the larger the diameter of the stock the slower should be the speed of the machine. Do not lay hand on top of cylinders to test smoothness while machine is in motion. Flesh on inside of hand may be caught in the lathe.

118. On a faceplate job saw a disc-shaped piece *accurately* round. A piece sawed only *fairly* round may fly out of the lathe. It is poor practice to "knock off the corners" and then begin turning.

119. Do not use a gouge on the inside of a cup-shaped faceplate job; the tools may catch and turn.

120. Turn off the machine to test stock and do not make adjustments or use calipers while the stock is revolving. Keep lathe tools sharp and be sure they have good, strong wooden handles.

(Please turn to page 33)



A BASIC Program

by WILLIAM R. MASON

HOW do you teach safety? Is safety a unit of instruction like math or English or history? Can we set down certain fundamental principles, trace their history, and fix their facts in the minds of young people? To teach safety do you list statistics or quote famous people or show pictures and posters? How do you know what needs to be taught? How do you know you are teaching what needs to be taught? Do you give examinations on the subject?

A survey recently conducted by the associated industries of Cleveland pointed out that personnel men in Cleveland factories are not at all sure that we teach safety in our school shops. Certain personnel men said they saw some evidence that safety was being taught. Others said they found a great deal of evidence that safety habits were not only taught but developed. Still others said that they could find no signs at all that safety instruction was offered or that any safety habits were developed.

Our philosophy has always been that *the best safety education comes through the teaching and practice of the correct use of tools and machines*. Safety is a habit. Safe habits are formed through using tools as they were meant to be used. Machines must be operated as they were designed to be used and for the purpose they were made.

Many safety slogans and posters are based on warnings and point out what happens when a worker does something wrong. Our safety slogan is, "No tool or machine correctly used will hurt anyone."

MR. MASON is supervisor of industrial arts, Cleveland (Ohio) Board of Education.

Safety Education for September, 1950

If we teach safe practices and emphasize safe procedures, we should automatically be able to reduce school shop accidents.

What are some of the things which we do in our school shops which are definitely labeled safety education?

Safety foremen are selected by teachers from their advance students. These foremen report on shop conditions, such as guards, unsafe tools, belts, and the like. Classes hold discussions and report on safety. In the junior high school the foreman system has not worked out too well because of the age of the pupils involved. Many teachers, however, divide their classes into groups or sections and appoint group leaders to help with shop cleanup, rotation through units of work, and instruction. They are junior foremen, so to speak, but are never called foremen.

What safety needs to be taught in the school shop? A committee with the help of our office and the supervisor of safety education for the Cleveland schools, published a shop safety manual which has become our safety bible. This manual lists general safety rules and instructions for all shop teachers. There is a section devoted to safety around specific machines and safe use of specific tools. Something rather new in shop safety bulletins is a page listing a uniform color code for all school shops. Our experience with the painting of equipment according to a safety code parallels the results claimed for such a program by industry.

We make regular safety inspections of school shops under our supervision. A rating form covering conditions of machines, work benches, paint cabinets, tool panels, supply

(Please turn to page 32)

PONTA-SAN DIRECTS TRAFFIC

Part One

About These Pictures

THIS is the story of Ponta-san, and how he directed traffic one day.

The original copy, from which these photographs were made, is used by the National Rural Police in Japan as part of their traffic training program.

Many copies of this illustrated manuscript have been produced for the Kami-shibai or paper theater of Japan. This method of presentation is an integral part of Japanese culture. A man on a bicycle travels around the country. On his bicycle is fastened a puppet-like box theater. When he stops his bicycle at a certain place to present the theater, he inserts the drawings and reads the text, which is printed on the back of each drawing.

This illustrated manuscript was sent to us through the courtesy of Frances Baker of the Civil Information and Education section, G.H.Q., SCAP*; Col. G. B. Lynch, chief, reorientation branch, Office of the Under Secretary, Department of Army, Washington, D. C.; and Lt. Col. D. R. Nugent, chief of the Civil Information and Education section, SCAP.*

These drawings were also made into booklets and sold in department stores. When Colonel Lynch wanted a copy, he found the stores were out of the booklets because of great demand.

(NOTE: The entire story of "Ponta-san cannot be told in one article, so it will be run serially until completed.)

*Supreme Commander for the Allied Powers.



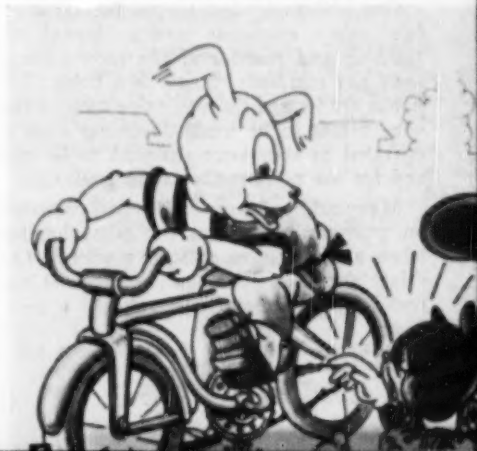
1.

Hark, the grand entrance of Ponta-san! Ponta: "Oh what a wonderful day. Guess I'll teach the kids something about traffic rules. How do you like my new snow-white gloves? Nice don't you think?"

2.

Ponta: "Aooch! What hit me from the rear? Well, if it isn't Wanko."

Wanko: "Aha, Ponta-san. What are you doing weaving back and forth across the street without looking around you? When you walk along the road, face on-coming traffic and walk near the edge."





3.

Ponta: "Meh, beh, beh, please excuse me for walking like that. You see, the weather is so nice, I was feeling so fine that I was dancing."

Wanko: "Yeah! But just make sure that you walk straight along the edge of the road, then you won't get hurt, and when you cross the street be very, very cautious."

4.

Happy-go-lucky Ponta, while saying "okay, okay," unfortunately stumbled in front of a bus that came from the rear.

Wanko: "Hey Ponta, look out!!!"

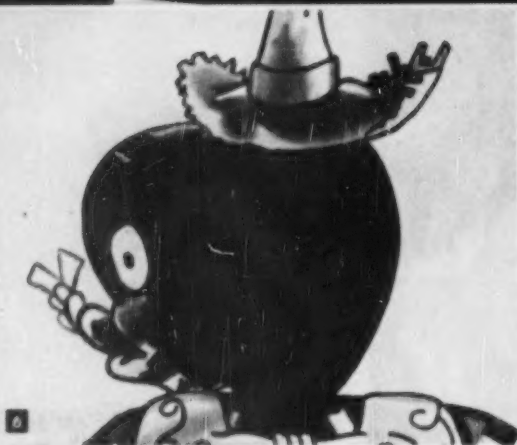
Ponta: "Waa . . . my nose is burning."



5.

Wanko: "Say Ponta, didn't I warn you! What? Flames flew out of your nose? Humph, to think that I warned you just a few seconds ago. When you're thinking of crossing the street, stop first and look to your right and then look to the left and when you're certain that the street is clear of traffic you can start walking. Understand?"



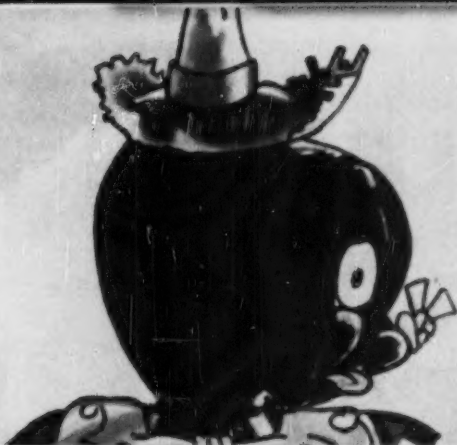


6.

Ponda: "I think I'll practice. Stop, look to the right. No cars coming? Look to the left. No cars coming? Then start walking."

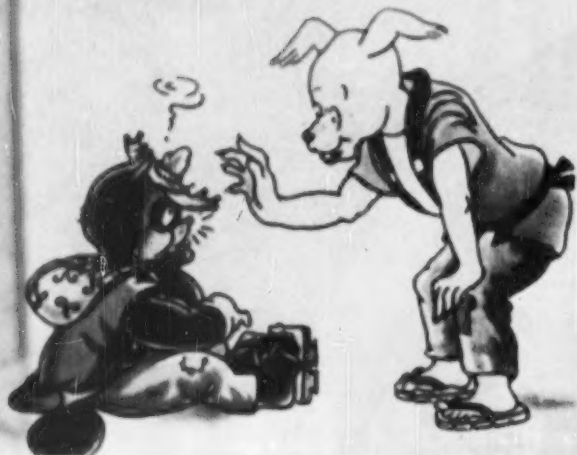
Wanko: "That's right."

Editor's Note: The man telling the story makes Ponda look right and then left by sliding Ponda's face through a slot in the drawing.



Ponda: "Now once more, look to the right. Look to the left."

Wanko: "Hey, Ponda, that's enough, but don't forget that! When you're crossing the street don't stop in the middle or ever cut diagonally across the street! Be careful now, so long."



7.

Ponda: "Why must I look toward the left last?"

Wanko: "If you look towards the left last, before walking out into the street, you will see any fast-moving car that is approaching the spot you are about to be in."

Ponda: "Hmmm, hmmm."

Wanko: "That's why you must look to your right and then look to your left."

8.

Ponda: "Say, you kids, don't you know any better than to play in the middle of the street? What are you kittens doing? You know it's dangerous to play ball in the middle of the street. You kids better hurry on to school or you'll all be late. Say, is Kame-san in your gang?"

(Continued next month)

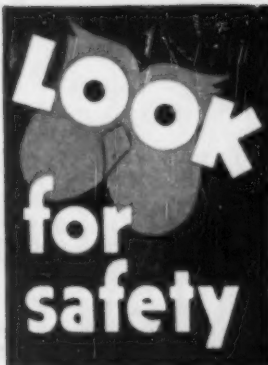


Lower Elementary Safety Lesson Unit

September, 1950

SCHOOL AND COLLEGE DIVISION—NATIONAL SAFETY COUNCIL—CHICAGO 17, ILL.

Teaching language arts, social studies and safety



Look for SafetyPEDESTRIAN SAFETY

Sketch S9042A



Let's Talk About the Sketch





1. Who says "Look for safety?"
2. What is the difference between a glance and




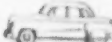


a careful look? Should you glance or look carefully when crossing the street?

3. Do children ever forget to look when they cross streets, get off the bus, run to get in a car?
4. Tell one way you can use your eyes for safety at home, on the playground, in school.

A Story for Motivation or Reading Practice

Your   help you to keep safe.

Your   see the  and the  who tell you

when to cross streets. Your   see the  and tell you when a train is coming. Don't let an umbrella keep you from seeing a . Wear white to help   of the drivers to see you on dark days.

Tell Why You Should Use Your Eyes for Safety When—



1. You walk down stairs.
2. You play tag.
3. You have younger brothers or sisters.
4. You finish playing with your toys.

Prepared under the direction of Helen Halter Long, principal, Chatsworth school, Larchmont, N. Y.
1 to 9 copies of this unit, 5 cents each. Lower prices for larger quantities. Printed in U.S.A.

Copy and—
Color.

Reading and Coloring Project



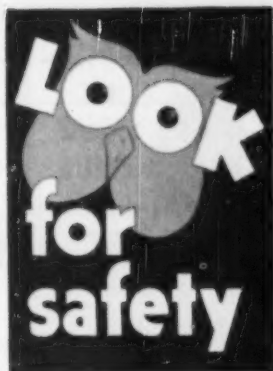
Circle the correct answer.

1. The wise old owl tells you to look where you are going. Yes No
2. Look one way. Then cross the street. Yes No
3. Walls and fences can hurt you if you run into them. Yes No

Answers to — Tell why you should use your eyes for safety. — 1. So that you do not fall. 2. So that you do not run into a fence or wall or bump into someone. 3. So that you can see when your younger brothers or sisters do dangerous things (like playing on a driveway) and stop them. 4. So that you can see when you are stepping backwards (like out on the floor).
Answers to — Reading and coloring project — 1. Yes. 2. No. 3. Yes.

Upper Elementary **Safety Lesson Unit**

September, 1950



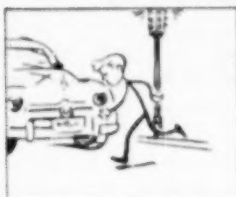
Sketch S9042A

SCHOOL AND COLLEGE DIVISION—NATIONAL SAFETY COUNCIL—CHICAGO 11, ILL.

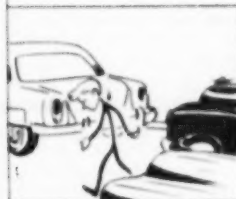
Teaching language arts, social studies and safety

Look for Safety **PEDESTRIAN SAFETY**

Why Should You Use Your Eyes for Safety When You Walk?—so you can see where you are going and who or what is coming toward you. Children who do not use their eyes do dangerous things like these:



They cross against the light.



They walk from between parked cars.



Let's Talk About the Sketch

1. Why do you think the owl was selected to give a safety message?
2. Do you agree that it is important to *look* for safety? Can you give examples of how one should use his eyes for safety (a) at home, (b) on the playground, (c) in the school building, (d) in the street?
3. Have you ever noticed boys and girls forgetting about looking for safety when they cross the street, get off the bus or run to meet someone in a car?

Activities

1. After looking at the sketch, draw pictures of other animals saying "Look for Safety." Each animal might say why he "looks for safety." For example, the mouse could say, "I look out for cats for safety!"
2. Fix a bulletin board—"Look for Safety." You might draw a large eye for the center. Then at the end of long "glances" (or strips of paper) going out from the eye, place pictures of hazards that the eye should see. One section might show such home hazards as skates or bicycles lying where they are tripping hazards, things left on the stairs, frayed electric light cords that might cause fire or shock, knives or matches left within children's reach, a bonfire, or some other home hazard. Other sections might show pictures of playground or school hazards or street and highway hazards.
3. Plan a "look for safety" contest. Draw or mount pictures from magazines showing all kinds of hazards. Number them and place them around the room. Let members of the class take pads and pencils and write down on their papers after each number the hazard that they see in that picture.

Prepared under the direction of Helen Halter Long, principal, Chatsworth School, Larchmont, N. Y.
 In 9 copies of this unit, 5 cents. Lower prices for larger quantities. Printed in U.S.A.

Your Can Keep Your From Killing You!

Copy and—
Fill in blanks.

1. Look and wait for the _____ light before crossing.
2. At the corners look out for _____ cars.
3. Make it easy for drivers to see you by wearing something _____ at night or on dark days.
4. Keep your head up when you walk (even in rain or snow) so that you can _____ where you are going.
5. At a railroad crossing look for the flashing _____ light for approaching trains.
6. Never go into the street from between _____ cars because oncoming motorists cannot _____ you in time.
7. Even though you get wet, hold your _____ so that you can see.
8. Notice painted crosswalks and stay within their _____.
9. While crossing a street, don't read a _____ or look at something a friend shows you. Keep your _____ on traffic.
10. Don't run or _____ in the street.
11. Cross at corners; not in the _____ of the block.
12. Where there are sidewalks, walk on them; not in the _____.
13. Where there are no sidewalks, walk on the _____ of the roadway, _____ traffic.
14. Don't make sudden dashes or stops in the _____. Look and think; then walk.
15. Don't leave the _____ until you have plenty of _____ to get all the way across before approaching traffic can reach you.
16. Do not walk behind or in front of a streetcar or commercial bus after alighting; wait until the car or bus has gone on and you can _____ approaching traffic.
17. Look carefully _____ ways before stepping into the street or highway and keep _____ all the way across.
18. Obey traffic signals and _____.

Keep your open and don't put your in the trap!



Of course, you know that there isn't really a trap waiting for you just beyond those parked cars. But so many people are killed dashing into the street from between parked cars that it is almost the same thing as putting your foot into a trap. The next time you start out from between parked cars, think of the trap and step back to safety!

Answers to "Your eyes can keep your feet from killing" are: 1. green 2. turning 3. white 4. see 5. red 6. parked 7. umbrella 8. times or boundaries 9. news 10. back 11. front 12. looking 13. right 14. paper or book 15. eyes 16. pass 17. middle 18. never

Answers to "Your eyes can keep your feet from killing" are: 1. green 2. turning 3. white 4. see 5. red 6. parked 7. umbrella 8. times or boundaries 9. news 10. back 11. front 12. looking 13. right 14. paper or book 15. eyes 16. pass 17. middle 18. never

Junior High Safety Lesson Unit

September, 1950

SCHOOL AND COLLEGE DIVISION—NATIONAL SAFETY COUNCIL—CHICAGO 17, ILL.

For use in English, social studies, guidance and homeroom



Sketch S9043A

Know the Safety Rules

GENERAL SAFETY

Do You Know the Safety Rules?

Copy and—

Underline the correct answers. One or more may be correct.

1. If you are caught in a lightning storm and only the following shelters are available, you should choose (a) automobile, (b) tree, (c) small shed, (d) tent.
2. When approaching farm animals you should (a) be quiet so as not to disturb them, (b) whistle or sing or talk, (c) try to surprise them so they won't get nervous as you advance.
3. If you are in a position to rescue someone in distress in the water, it is best to try (a) a swimming rescue, (b) a rope or long pole, (c) a boat.
4. If you need to oil or adjust a tractor or other machine, you should (a) turn off the engine, (b) keep the engine going so that you can see what you are doing.
5. If you wish to clean clothes in the safest and most economical way, you should (a) use naphtha, (b) use gasoline, (c) use a commercial brand of cleaning fluid, (d) send them to a dry cleaner.

Knowing Safety Rules Pays:



A recent study* compared the scores on a safety knowledge test of accident-free pupils with the scores made by accident-repeater pupils. No pupil in the accident-free group failed the test, in contrast to 41.9 per cent of the accident-repeaters. Scores of accident-free pupils were higher.

*Sidney Birnbach, A Comparative Study of Accident-Repeater and Accident-Free Pupils. Center for Safety Education, New York University, 1948.

Prepared under the direction of Fuere E. Long, chairman of the department of secondary education, New York University, New York, N. Y., and Helen Halter Long, principal, Chatsworth School, Larchmont, N. Y.
1 to 9 copies of this unit, 5 cents. Lower prices for larger quantities. Printed in U.S.A.

Safety Projects†



1. Have a representative of the local power company demonstrate amperage, simple fuses and their replacement.
2. Trace step-by-step procedure of traffic law enforcement from the issuance of a ticket through the trying of the case. It might be interesting to have this procedure explained by a local traffic officer or judge.

3. Plan a kitchen or automobile first-aid kit.
4. Compile a list of common poisons and their antidotes.
5. Plan a safe Hallowe'en program for the community.
6. If you do not already have a copy, send to the National Safety Council for a free copy of their honor roll requirements. Read the requirements and decide whether your school could qualify. Perhaps you would like to form a committee to start your school to work for listing on the honor roll.



†For more suggestions of safety projects, see *Student Safety Activities*, published by the National Safety Council.

Answers to "Do You Know the Safety Rules?"—1. a, c, d; 2. a; 3. a, b; 4. a; 5. c, d.

A Skill Lesson in Analyzing a Problem

Directions: In order to progress in one's ability to analyze a problem, it is necessary to develop the habit of approaching a problem critically. Too frequently we hear young people discussing a problem with poise and interest but without the facts. When a problem is presented, it is wise to:

1. Divide it into its logical parts.
2. Consider each part critically, asking what are the facts.
3. Based on the facts, propose possible solutions.

As a practice in problem analysis, consider the problem of "Safety and the High School Student."

This problem may be divided into the following parts (1) in school, (2) at home, (3) on street and highway, (4) other places.

On the basis of the following facts (and any other additional specific information which you can locate, such as the kinds of accidents in your own school), write your idea of possible solutions to each part of this safety problem.

Part 1—In School

The facts are: According to the National Safety Council, school systems reporting to the Council during the school year 1948-49 showed that in the school buildings, on school grounds, or while going to and from school, there were 12.2 injuries per thousand students. Approximately 47 per cent of the school accidents occurred inside the school building. High school records showed fewer accidents on the school grounds in unorganized play than occur on elementary school grounds. However, the proportion of injuries in organized athletics in high school is higher, especially in football. Although only a relatively few students participate in high school football, football injuries made up one-fourth of all school accidents to 11th and 12th grade students.

Part 2—At Home

The facts are: Deaths from home accidents totalled 30,500 in 1949, and 4,500,000 persons were injured at home, an average of 1 out of 33. The principal types of fatal home accidents to children age 4 and under were mechanical suffocation and burns; to children from 5 to 14, burns caused more home deaths than any other type of accident; to young people 15 to 24, firearms accidents were the outstanding type of home deaths; in the 25-to-44-year old group, fatal burns ranked first; to persons more than 44, the principal cause of accidental deaths in the home was falls.

An analysis of firearm deaths indicates that considerable reduction in this type of accident is possible. Many deaths occur when children find loaded guns and accidentally shoot their playmates. The mere handling, exhibiting or examining of guns

in the home also causes a substantial proportion of deaths.

Part 3—On Street and Highway

The facts are: The mileage death rate from motor vehicle accidents in the United States during 1949 was 7.4 per 100 million miles, 9 per cent lower than the 1948 rate, and the lowest mileage death rate on record. Although the total number of persons killed in motor vehicle accidents was still large—31,500—the decrease in the death rate was encouraging.

Comparison of the trend in death totals in urban and rural areas indicates clearly that accident prevention efforts have been more successful in the urban areas. In rural areas, the preliminary 1949 mileage death rate, 10.4, was more than twice the urban rate, 4.4. In every month the difference between the rural and urban mileage death rates was pronounced, but it was particularly noticeable in the last months of the year, when the rates reached their highest point.

Until 1948 without exception the pedestrian death total exceeded the death total from any other type of motor vehicle accident. For the first time, in 1948 and again in 1949, collisions between two or more motor vehicles took more lives than collisions of motor vehicles with pedestrians. The pedestrian death total for 1949 was about 10 per cent below the total of the previous year. Statistics show that young people of high school age are more likely to be involved in a motor vehicle accident as drivers or occupants of a car than as pedestrians. The preliminary motor vehicle death rate per 100,000 population for young people between the ages of 15 and 24 was 28.2 in 1949. This is the highest rate for any age group except the 65-and-over group, in which there is a high percentage of deaths as pedestrians.

Part 4—Other Places

Space does not permit the inclusion of detail about the many other types of accidents. *Accident Facts*, published annually by the National Safety Council, provides such details. However, the large number of drowning accidents—6,800 in 1949—should be mentioned here since the highest death rates from drowning are for the 5-to-14-year and 15-to-24-year age groups.

Activities

1. Select one part of the safety problem and explain its importance, quoting facts and suggesting things that would help to prevent those accidents.
2. Plan a safety discussion.
3. Organize a contest. Submit safety rules which would result in accident prevention among students. The most interesting safety rules would be the winning entries.



Senior
High

Safety Lesson Unit

September, 1950

SCHOOL AND COLLEGE DIVISION—NATIONAL SAFETY COUNCIL—CHICAGO 77, ILL.

For use in English, American history, American problems, home economics, art, guidance and homeroom

Know the Safety Rules

GENERAL SAFETY

Are You Equipped to Prevent Accidents?

A recent study* analyzed the problem of accident-repeater pupils and accident-free pupils. The results of this study should be of interest.

1. "The National Safety Education Test revealed that the accident-free group had a more comprehensive knowledge of safety than the repeaters. No pupil in the accident-free group failed in this test, in contrast to 41.9 per cent of the repeaters who failed. The scores of the free group ranged from a low of 54 to a high of 72, whereas the repeaters' scores ranged from 30 to 68. The maximum possible score was 80."

2. No other factors studied in this test showed such a significant difference between accident-repeaters and accident-free pupils as did the factor of safety knowledge. However, the Bell Adjustment inventory showed a larger percentage of maladjustment, especially emotional maladjustment, among the accident-repeater group than among the accident-free. This fact may indicate that pupils with emotional problems should seek help from the school counselor or psychologist, since their worry may not only make them unhappy, but may cause them to be hurt physically.

3. An examination of intelligence rating showed no significant difference between the intelligence rating for the accident-repeaters and the accident-free pupils.

4. An examination of classroom teachers' evaluations of pupils' growth in personal and social relationships showed that accident-free pupils were rated higher on industry, dependability, courtesy and co-operation than were the repeater groups.

*Sidney Birnbach, A Comparative Study of Accident-Repeater and Accident-Free Pupils. Research contributions to safety education, Center for Safety Education, division of general education, New York University, 1948.

Prepared under the direction of Forrest E. Long, chairman of the department of secondary education, New York University, New York, N. Y., and Helen Haber Long, principal, Chatsworth School, Larchmont, N. Y.
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Sketch S9043A

Are You Trained for the Responsible Job of "Baby Sitting?"

Accidents to children in the home . . .

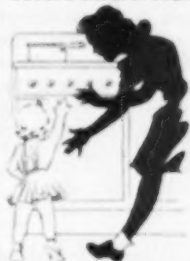
1. Four out of five accidental deaths to children under five years of age occur in the home.

2. Nearly 50 per cent of fatal home accidents to children, 0 to 5 years of age, in 1948, were due to burns, scalds or explosions.

3. Swallowing of poisons was responsible for 7 per cent of the home accident deaths of children under 5 years of age.

4. Falls in the home in 1948 caused 300 deaths to children under five years of age.

Before Mrs. X leaves . . .



Know how to control danger spots in and around the home. Find out the following:

1. Are the fires or the heating systems under control?

2. How is the kitchen stove lighted? Turned off?

3. Where are the safe areas in which the child has been taught to play?

4. What safety reminders does the young child most frequently need? For example:

- Does he stay away from the stove?
- Does he stay away from unguarded, open windows?
- Are medicines, cleaning agents, lye, etc., out of the child's reach?

Know what to do in an emergency . . .

1. At what telephone number can you reach the parents? If they cannot be reached by telephone, whom should you call?

2. Where are the first-aid supplies?

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in the home also causes a substantial proportion of deaths.

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Part 4—Other Places

Space does not permit the inclusion of detail about the many other types of accidents. *Accident Facts*, published annually by the National Safety Council, provides such details. However, the large number of drowning accidents—6,800 in 1949—should be mentioned here since the highest death rates from drowning are for the 5-to-14-year and 15-to-24-year age groups.

Activities

1. Select one part of the safety problem and explain its importance, quoting facts and suggesting things that would help to prevent those accidents.
2. Plan a safety discussion.
3. Organize a contest. Submit safety rules which would result in accident prevention among students. The most interesting safety rules would be the winning entries.

Lesson Unit Themes

1950-51

FOR the convenience of teachers of safety using the monthly safety lesson units printed in *SAFETY EDUCATION*, we are listing the slogans and themes for the present school year. This will aid teachers in planning their year's class study outlines.

ELEMENTARY		
Month	Slogan	Theme
September	Look for Safety	Pedestrian
October	Can You Smell Hazards?	Fire
November	Make Rules for Safety	Playground
December	For Happiness Give Safety	Home
January	Stop. Look. Listen!	Pedestrian
February	Keep Play Space Clean	Playing
March	Use Your Hands for Safety	Traffic (non-motor vehicle)
April	All Together for Safety	Bicycle
May	Think for Safety	Vacation
SECONDARY		
Month	Slogan	Theme
September	Know the Safety Rules	General Safety
October	Give the Specialist a Chance!	Fire
November	Protect Yourself	Protective Equipment
December	Make Yours a Safe Christmas	Home
January	Keep Moving—But Slow Down	School
February	Give the Other Fellow a Break	Sportsmanship
March	Don't Be One—Mind Your Motor Manners	Driver Education
April	Be Careful—The Life You Save May Be Your Own	Pedestrian
May	It's Worth Repeating—"Safety Pays"	Vacation

Journalism Saves Lives

by SPENCER D. BENBOW and J. MURPHY REEVES

TWEEN-AGE journalists have taken up the cry for careful teen-age driving in their attempt to reach the 40,000 students in Metropolitan Oakland high schools.

National magazines . . . *Collier's*, *Life*, *Readers' Digest* . . . have devoted pages to the disastrous results of teen-age driving. Clubs, newspapers, educators, and police officers have reiterated the cold facts of what teen-age drivers cost the country in both lives and money. But why not an analysis of the problem from the viewpoint of the publicized teen-agers themselves? Parents reprimanded them, teachers lectured them, but what did the boys and girls most concerned have to say? Might not a word from their own group, in their own language, accomplish more than volumes of sound advice from those adults long out of high school?

The idea for a journalism contest grew out of a meeting of staff and volunteer members of the Eastbay Green Cross and school officials. At first, the schools were somewhat skeptical of any contest . . . schools have been plagued with too many contests. But when it was shown that the plan was offered as part of a year-round education program in the interest of public safety and not as a publicity stunt for a current fund campaign, the schools approved the plan.

Rules were agreed upon. The contest was open to all Eastbay high school newspaper staffs. Entries were to consist of a series of three articles, at least one of which had to be an editorial, printed in a high school publication during the month of November.

The teen-age writers began their campaign. Soon the whole problem was not just the topic for the students most handy with a typewriter, but a project for entire schools. The news department of one high school sponsored a special assembly bringing in speakers on traffic accident prevention. Students conducted a survey and selected their own "safest" drivers, who received special certificates of award from the traffic division chairman of the Eastbay chapter, National Safety Council.

DR. BENBOW is administrative assistant, Oakland (Calif.) Public Schools; and DR. REEVES is chairman, school division, Eastbay chapter, National Safety Council.

Program

(Continued from page 19)

racks, and supply cupboards is filled out for each shop. The appearance of the room, the arrangement of equipment, and the application of the recommended safety painting code are all judged.

We are attempting to provide proper bins and racks for the storage of stock and supplies. Safety cans for combustible materials and oily rags are a must in all of our shops.

Incidentally, the Cleveland Fire department has recently ruled that we shall no longer use gasoline in any school shop for any purpose. Print shops have always used gasoline as a type cleaner. Now, however, we use less volatile materials.

Less Time Wasted

We are using tool dollies, open tool panels, or tool cabinets spotted about the shop. Less pupil time is wasted in checking out tools, and fewer tool losses are reported with these new arrangements.

Two simple little tricks may be of interest to you if you have not already seen them. The idea of the tool panel is not new. Neither is the idea of painting silhouettes of the tools on the board to show when the tool is in use. Our teachers are using colored cardboard silhouettes of the individual tools. These are shellacked to the tool racks. They are easier to make and apply than the painted silhouette. In some cases where a tool is of peculiar shape, large-size furniture coaster buttons are placed on the board behind the tool. These show up when the tool is missing.

Shop clothing is pretty much an individual school problem. Some schools furnish aprons for their shop pupils and charge a standard fee for laundry and upkeep. Other schools require boys to bring their own. Coveralls are quite generally worn in aviation and auto shops. I personally like the idea of a standard shop apron or coverall to be furnished by the school. This always looks better because they are all alike. Generally speaking, they are kept cleaner and in better repair. Safety clothing, such as leggings for the foundry and leather aprons and gloves for welding units, is, of course, always furnished by the school. Goggles are a must for every machine which offers any kind of eye hazard. These, too, are furnished by the board of education. Teach-

ers are required to keep these in a convenient place near the machine with a sign warning that goggles must be used.

We keep proper guards on all machines at all times.

Every teacher should be required to reorganize his room from time to time. We are quite apt to add new pieces of equipment as new areas of instruction come into popularity. Usually, the new equipment is fitted into the existing setup wherever it seems to go best. Every now and then, we should do as industry does when retooling for a new product. We should replan the entire room.

Shop layout is an important safety factor. If we come into an orderly situation, we tend to help keep it orderly. If a shop is laid out by units, keeping supplies, tools, and work arrangements in close relationship, we tend to work with more system. All of this leads toward fewer accidents.

Class Project

Another recent safety activity has been the construction of safety bulletin boards for each school shop. They were built in one of our technical high schools by a production wood-working class.

We have also purchased sets of selected posters to go with these bulletin boards. A schedule of poster rotation among the shops is worked out by the shop superintendent. Posters are to be changed each week.

We emphasize instructive methods of safety education. We deliberately omit posters of the negative or fear type. Along this same line, we purchased a series of decals for the various machines and guards in the school shops. These decals instruct operators of the machines to check safety devices to be sure everything is in the clear, or to use gloves and brushes for cleaning the machine. Decals are placed in a conspicuous spot on the machine.

Having determined what safety needs to be taught in our schools, "How do you know when it is taught?" This is more difficult. It is hard to find out how much safety a student really does know. He may show an attitude towards safety that is desirable, but attitudes are difficult to test or check. He may have developed habits of safety. Here again, habits show up best in practice. About the best and only place really to find out if a worker is safety minded is when he is applying his skills on the job.

Data Sheet

(Continued from page 18)

121. Do not allow excess chips to gather on the floor or on the lathe; they are slipping and fire hazards.

Mortiser

122. The mortiser is one machine which can be damaged more frequently than the operator is injured, if used carelessly. Mortisers can be dangerous to the operator, however, if work is not securely clamped in place. Be sure bit and chisel are properly set and secure, and hand-turn machine one complete revolution before turning on power.

123. When machine is in operation, keep hands away from chisel.

Tenoners

124. Provide tenoner with full cover guards over cutter heads.

125. Keep work under pressure while cut is being made. This is done by properly setting the hold-down lever.

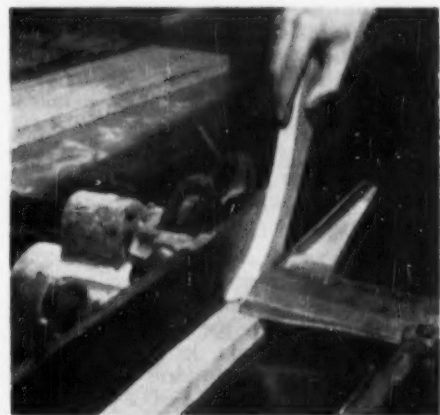
126. Do all cutting while sliding bed is being pushed away from operator.

127. If saws are used on tenoners they should be protected by strong, well-secured, metal bands.

Sanders

128. Sanders, regardless of type, should have a good exhaust system as near as possible to point of contact between wood and sandpaper.

129. Enclose unused parts of sanders: discs-type—under table and as much as possible above;



For surface jointing, guard should rise and ride on top of the work. Use push stick for short pieces.

drum type—fenced behind and partially covered by exhaust hood;

belt machines—pulleys over which sanding belt travels by sheet metal guards (which also can serve as part of the exhaust system). The edges of the unused run of the sanding belt should also be enclosed.

130. Set up drum sander to take a small cut and keep hands off while machine is in operation. Stop machine if piece of stock gets caught on edges of bed of machine. Don't try to save the stock.

131. With belt sander, make sure stock rests firmly against stop on machine bed and keep hands away from belt. When using sanding blocks, hold blocks squarely and firmly on the work. Otherwise they may tip and cause hand or finger injuries.

132. When disc sanding, always secure disc properly in place, keep stock firmly against machine bed stop, and keep hands away from the revolving disc.

133. Use work forms whenever possible on drum, belt or disc sanders, and do not attempt to remove more than a small amount of stock at one time.

Sources

134. ACCIDENT FACTS. (Complete summary of U. S. accident experience—all causes.) Illustrated. Chicago, Ill. National Safety Council. Issued annually in July.

135. ACCIDENT PREVENTION MANUAL FOR INDUSTRIAL OPERATIONS. 534 pp. Illustrated. Chicago, Ill.: National Safety Council, 1946.

136. GRINDING WHEELS. Safe Practices Pamphlet No. 13. 15 pp. Illustrated. Chicago, Ill.: National Safety Council.

137. INDUSTRIAL ACCIDENT PREVENTION. H. W. Heinrich. 448 pp. Illustrated. New York and London: McGraw-Hill Book Co. 1941.

138. SAFETY EDUCATION DATA SHEET No. 15—HAND TOOLS. School and College division. 4 pp. Illustrated. Chicago, Ill.: National Safety Council.

139. SAFETY EDUCATION DATA SHEET No. 41—HOME WORKSHOPS. School and College division. 5 pp. Illustrated. Chicago, Ill.: National Safety Council.

140. SAFETY EDUCATION IN THE SCHOOL SHOP. 68 pp. Illustrated. Chicago, Ill.: National Safety Council. 1948.

141. **SCHOOL SHOP SAFETY MANUAL.** 240 pp. New York, N. Y.: Board of Education of the city of New York. 1948.

142. **SHOP SAFETY EDUCATION.** The State Education Department. 319 pp. Illustrated. Albany, N. Y.: The University of the State of New York. Distributed by Delmar Publishers, Inc., Albany, N. Y. 1949.

143. **WOOD JOINERS.** Safety Instruction Card No. 427. Chicago, Ill.: National Safety Council.

144. **WOOD PLANE OPERATORS.** Safety Instruction Card No. 452. Chicago, Ill.: National Safety Council.

145. **WOODWORKING MACHINERY AND EQUIPMENT.** Safe Practices Pamphlet No. 20. 16 pp. Illustrated. Chicago, Ill.: National Safety Council.

Other Safety Education Data Sheets now available are:

- (1) Bicycles
- (2) Machines
- (3) Firearms
- (4) Toys and Play Equipment
- (5) Falls
- (6) Cutting Implements
- (7) Lifting, Carrying and Lowering
- (8) Poisonous Plants
- (9) Electric Equipment
- (10) Pedestrian Safety
- (11) School Buses
- (12) Flammable Liquids in the Home
- (13) Passenger Safety in Public Carriers
- (14) Chemistry
- (15) Hand Tools
- (16) Nonelectric Household Equipment
- (17) Sidewalk Vehicles
- (18) Camping
- (19) Alcohol and Traffic Accidents
- (20) Cooking and Illuminating Gases
- (21) Solid and Liquid Poisons
- (22) Safety in the Gymnasium
- (23) Laboratory Glassware
- (24) Places of Public Assembly
- (25) Firearms and Blasting Caps
- (26) Domestic Animals
- (27) Swimming
- (28) Small Craft
- (29) Play Areas
- (30) Winter Driving
- (31) Night Driving
- (32) Winter Sports
- (33) Traffic Control Devices
- (34) Safe Conduct in Electrical Storms
- (35) Poisonous Reptiles
- (36) Motor-driven Cycles
- (37) Animals in the Classroom
- (38) Railroad Trespassing
- (39) Bad Weather: hazards, precautions, results
- (40) School Parties
- (41) Home Workshops
- (42) Horseback Riding
- (43) Hiking and Climbing
- (44) Hook and Line Fishing
- (45) Summer Jobs—Farm

Data Sheets from **SAFETY EDUCATION** are available for a small fee from the National Safety Council, 425 N. Michigan Avenue, Chicago 11, Ill.

An excellent manual to use in addition to this data sheet is **SAFETY EDUCATION IN THE SCHOOL SHOP** prepared by the School and College division, National Safety Council, 425 N. Michigan ave., Chicago 11, Ill.

Training Aids

(Continued from page 11)

discussion, see with their own eyes how the differential works, what happens when the clutch is depressed, what a universal joint is, and what happens to the piston and valves when a spark ignites the gasoline-air mixture in the cylinder. Whoever says he cannot get students, especially girls, to maintain interest just hasn't used these aids!

Actual Situations

Then take the several types of flannel board and magnetic traffic demonstration boards. With proper use, they are invaluable in aiding the instructor to set up actual traffic situations for study and discussion. Students become eyewitnesses to how accidents happen, how they can be avoided, and what makes for responsible, sportsmanlike driving. The several types of boards available are durable, portable, flexible and have a high visibility factor for large classes. Accessories include vehicles, traffic signs, fire plugs, loading platforms, pedestrians, parking meters, traffic signals and streetcar tracks. The accessories stick on the tilted board through either the flannel combination or by magnetism. Thus any traffic situation can be set up and demonstrated.

Lively Interest

Participation by students in demonstrating knowledge of sound driving practices makes for lively classroom activity. Other students watch such demonstrations with an eagle eye, and instructors who use a technique of *find the errors* are rewarded by keen attention, pungent student observations and a heartening feeling that the story is going across—and that proper attitudes will be manifest behind the wheel when the test comes.

Ingenuity, skill and intelligent know-how have been built by the designers and manufacturers into the many driver education aids now available to teachers. Those who use them to advantage swear by them as necessary and even essential to a well-rounded course that has students eager to come back for more! If you are not using these aids in your teaching program, let me assure you that a new dawn in student interest will result when you unveil the first of your group of new teaching aids—and the cost is surprisingly low.



MICROFILMS

Chicago, Ill.—The National Safety Council has entered into an agreement with University Microfilms, Ann Arbor, Mich., to make available to libraries issues of a number of Council publications in microfilm form.

One of the most pressing problems facing all types of libraries today is that of providing adequate space for a constant flood of publications. Periodicals pose an especially difficult problem because of their bulk and number.

Microfilm makes it possible to produce and distribute copies of periodical literature on the basis of the entire volume in a single roll, in editions of 30 or more, at a cost approximately equal to the cost of binding the same material in a conventional library binding.

Under the plan, the library keeps the printed issues unbound and circulates them in that form for from two to three years, which corresponds to the period of greatest use. When the paper copies begin to wear out or are not called for frequently, they are disposed of and the microfilm is substituted.

Sales are restricted to those subscribing to the paper edition, and the film copy is only distributed at the end of the volume year.

The microfilm is in the form of positive microfilm and is furnished on metal reels, suitably labeled. •Inquiries concerning purchases should be directed to University Microfilms, 313 N. First Street, Ann Arbor, Mich.

Council publications covered in the agreement include: SAFETY EDUCATION, NATIONAL SAFETY NEWS and PUBLIC SAFETY.

FIRE FIGHTER FLEMING RETIRES

New York, N. Y.—T. Alfred Fleming, 75, who has devoted his life to fire prevention efforts, has retired as head of the conservation department of the National Board of Fire Underwriters.

Fleming, a member of the National Safety Council, said recently that a school fire catastrophe changed the entire course of his life. He was an ordained minister in Collinwood, Ohio, when, on March 4, 1908, a fire broke out in the Lakeview Grammar school. He rushed to the scene to find that the fire had cut off the front exits, and the back exit was locked. Flames could be seen through the lower windows.

"... and tiny bodies piled up behind exits that couldn't be opened. It was horrible. The toll: 175 children and teachers," he said.

As the result of this experience Fleming developed an intense interest in fire prevention—an interest which led to his appointment as state fire marshal of Ohio in 1917, and election in 1918 as president of the Fire Marshals' Association of North America.

Fleming joined the National Board as director of conservation in 1919.

He has traveled an estimated 1,500,000 miles in 30 years to countless cities and hamlets and has launched thousands of fire prevention weeks, concerted safety campaigns, and community drives to halt the horrible toll of American lives by fire. With the co-operation of local fire departments, he has effected correction of fire hazards in many cities.

"Property loss last year in the U. S.," he said, "totaled 711 millions and 11,000 gave up their lives. We're so engrossed with our work these days that we get careless."

Fleming considers especially significant a series of lectures on fire-safe construction which he has given periodically in approximately 90 colleges and universities. All of these institutions have adopted the national building code of the National Board of Fire Underwriters as a supplementary textbook for students of architecture and engineering.

He has, in between traveling, written hundreds of fire prevention articles.

Fleming has also been a national counselor of the Boy Scouts of America in charge of the merit badge in firemanship. In this post and as editor of a Boy Scout booklet, *Firemanship*, he has served for many years.

He was born in Owen Sound, Ontario, Canada, on June 23, 1874, and came to the United States in 1897. From 1903 to 1913 he was pastor of the Miles Avenue Christian Church in Cleveland, Ohio; was secretary of the Department of Welfare of Cleveland during 1915 and 1916; and was elected to the Ohio legislature in 1916.

BLASTING CAPS

Washington, D. C.—The Institute of Makers of Explosives continues its national campaign to protect school children from dynamite blasting cap accidents. Its most recent effort is a concentrated drive with the aid of the memberships of several national youth and adult groups and organizations.

Some of these organizations are: National Safety Council, International Association of Chiefs of Police, National Sheriff's association, state superintendents of schools, Parent-Teachers association, Boy Scouts, Girl Scouts, 4-H, Future Farmers, National Grange and Junior Deputy Sheriffs' League.

The actual mechanics or operation of the program consist of press-radio releases, direct phone calls, posters, bulletin boards, memos to teachers suggesting that they warn their students of blasting cap dangers, and requests that local building permit departments post warnings to users of explosives to keep such equipment under lock and key.

All of the releases describe or picture blasting caps so that they are readily recognizable. The purpose of these caps and the danger of their unauthorized use is also fully explained.

Since the summer vacation period usually shows an increase in dynamite blasting cap accidents, the campaign received its greatest emphasis just previous to the closing of schools for the summer.

ADAMS FOR HASSKARL

Pittsburgh, Pa.—W. H. Adams, member of the executive committee of the National Safety Council public utilities section has been appointed chairman of the Accident Prevention committee of the American Gas association. He is completing the unexpired term of Paul L. G. Hasskarl who died last January.

Adams is safety director of the Manufacturers Light and Heat company and Associated Pittsburgh Group companies in the Columbia Gas system, with which he is a 45-year veteran in safety education.

STRASSER THE DOCTOR

New York, N. Y.—Marland K. Strasser, public education director of the Association of Casualty and Surety companies, has been awarded the degree of Doctor of Education by New York university.

Mr. Strasser's study is *The Development of a Program of Driver Selection, Training and Education for Commercial Motor Vehicle Fleets*.

For the past two years Mr. Strasser has headed the Association's public safety teaching staff. Previous to that he taught at colleges and universities throughout the country. He has also been a recent holder of the Sanford Perkins Memorial fellowship.

COMING EVENTS

Sept. 11-15, Portland, Ore. Eighteenth Annual Convention of the American Association of Motor Vehicle Administrators (Miltonahotel). L. S. Harris, executive director, 912 Barr Building, Washington 6, D. C.

Sept. 14-15, York Harbor, Me. Twenty-third Annual Maine State Safety Conference (Marshall House). A. F. Minchin, director, Industrial Safety Division, Maine State Department of Labor and Industry, Augusta, Me.

Sept. 19-21, Cleveland, Ohio. Twelfth Annual Ohio State Safety Conference (Hotel Carter). Carl L. Smith, secretary-treasurer, Suite 508, 2073 E. 95th Street, Cleveland 15, Ohio.

Sept. 24-27, New York, N. Y. Twenty-first Annual Meeting of the Institute of Traffic Engineers (Commodore hotel). Edward G. Wetzel, chairman, Arrangements Committee, c/o Port of New York Authority, 111 Eighth Avenue at 15th Street, New York 11, N. Y., or Robert S. Holmes, executive secretary, Strathcona Hall, New Haven 11, Conn.

Sept. 25-26, Little Rock, Ark. Arkansas State Safety Conference (Hotel Marion). Sessions cover industrial, farm, home, school, fire prevention, and traffic safety. Harvey D. Booth, executive director, Arkansas Safety Council, P. O. Box 2261, Little Rock, Ark.

Oct. 7-12, Colorado Springs, Colo. Fifty-seventh Annual Conference of the International Association of Chiefs of Police (Antlers hotel). Edward J. Kelly, executive secretary, International Association of Chiefs of Police, 1424 K. Street, N. W., Washington 5, D. C.

Oct. 16-20, Chicago, Ill. National Safety Council. 38th National Safety Congress and Exposition (School and College sessions, Morrison hotel). Wayne P. Hughes, director, School and College division, National Safety Council, 425 North Michigan Avenue, Chicago 11, Ill.

make **SCHOOL DAYS** *Safety days!*



School days are starting again. It is time to think about the protection of the students under your supervision. It is time to think about outfitting your school safety patrol with the correct equipment. Why not select it from our complete stock?

• **WHITE RUBBER RAINCOATS**—completely vulcanized, all rubber and water-proof. Available with school, city or sponsor's name on the back. Also can be had in yellow and black.

• **SAM BROWNE BELTS**—in white or yellow plastic or web. Completely adjustable, with rust-proof metal hardware. Economically priced. Immediate delivery.

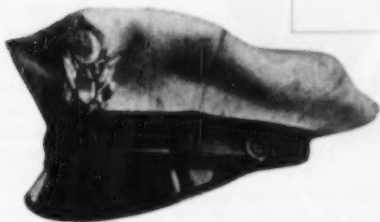


• **METAL PATROL BADGES**—lend official importance to your safety patrolmen. Officers' badges are finished in gold color, members' finished in nickel.

• **ALUMINUM ARM BANDS**—in colorful red and silver finish. Shield is curved to fit the arm, and is complete with leather strap.



• **GABARDINE CAPS**—fashioned in the 8-point style. Snappy, in Navy Blue, other colors on special request.



Send for catalog with listing of our complete line, from "America's Largest Safety Patrol Outfitters"

GRAUBARD'S

266 Mulberry St.
Newark 5, N. J.

"America's Largest Safety Patrol Outfitters"

He Looked Like a Deer!

(Continued from page 6)

valley were probably misses anyway. It is just possible that you got the only deer today.

He should be just below this ledge, probably in that patch of . . . A muddy boot and a wet rifle hold your eye. Somehow you find yourself next to him in the laurel. Is he hurt? Or dead? Blood on the leaves runs silently from a sodden hole in a familiar coat. You rip buttons open. Your mind whirls. Why was Dad up here? How did he get here? Did he fall on his gun? . . . and then, you remember that only one shot was fired up here today!

Keep your head. No one else can help. You find your belt swinging in your hand. Then you waste more time putting it back in the loops as you realize that no tourniquet can be used on that wound. A slight cough and he is dead. You know it while kneeling there watching his red cap fill, the rain making dimples in the pooled blood.

The descent from the ridge was interminable. You had tried to carry him but the new stains mixing with the old on your beloved jacket was more than you could take.

PLASTIC SAM BROWNE BELTS FOR GREATER SAFETY



Available in either white or Federal yellow, these plastic belts glisten in the sun and are bright on dark days. Flexible—Smartly Styled—Adjustable—Easily Cleaned.

Federal Yellow Flags with desired lettering and Yellow Raincoats with Hats and Cape Caps to match complete the attire of your School Patrol.

Endorsed by Safety Councils, Auto Clubs
and School Authorities Everywhere

The M. F. MURDOCK CO.
AERON 8, OHIO

This was your second climb up the ridge since it occurred yesterday. You are old, too old for this thing. Should get away from everyone until your head clears. First you had to lead a silent group of friends to get his body in your army blanket. Then telegrams and telephone calls seemed to take up the whole night. You sent no message. What would it say?

The Same Climb

Now, in the rain again, you are leading the sheriff over the same climb. He insisted on taking your statement at the scene of the accident, so you stand now at the shale ledge and point to your boulder. A searching deputy has already found the tracks of your deer—found also where he spooked downhill after nearly running over Dad who had been sitting under the ledge. Dad must have risen in the same instant to shoot.

How completely tired you are. No basic mental weakness here but fatigue and confusion. Everyone admits that you were constantly hammering away on gun safety. Who would have expected you to do this?

Shot Because . . .

It's hard to remember just what you said to the sheriff. O Yes! . . . and then I shot because it looked just like a deer."

No—you did not really make this particular trip and fortunately there is no real Mom to be faced in the morning. But think now! How did you escape such trouble? Are you the kind of a "safe hunter" who depends on luck for protection from the experience described above?

At the 1950 meeting of the Hunter Accident clinic, a reporting psychiatrist stated that through his vision and the aid of certain natural sounds a hunter can subconsciously select those features of a human which would add to, and ignore those factors which would detract from, the illusion of a deer or other desired game. How then can we protect ourselves and, more to the point, our companions if even our eyes play lethal tricks on us?

We of the National Rifle Association have no complicated set of rules or elaborate system to offer but we do have one device that can be very effective in saving human life.

Before you shoot, ask yourself this one question: CAN THAT POSSIBLY BE A MAN?

Safety Education for September, 1950

Views AND REVIEWS

... SAFETY TEACHING AIDS

• BOOKS AND PAMPHLETS

SAFETY PATROL HANDBOOK. How to Organize and Supervise a School Safety Patrol. 58 pp. Illustrated. Washington, D. C.: American Automobile Association, 1950.

This book is a complete summation of suggestions for organizing, supervising and/or improving school safety patrol operation. The book contains all of the most recent information on the subject.

An additional feature is the reprint of the National Safety Council's and the American Automobile Association's joint publication, *Standard Rules for the Operation of School Safety Patrols*.

YOU'RE GROWING UP. Helen Shacter, Ph.D., Gladys Gardner Jenkins, M.A.; and W. W. Bauer, M.D. 320 pp. Illustrated. Chicago, Ill.: Scott, Foresman and Co. 1950. \$1.72.

You're Growing Up is the latest addition to the Health and Personal Development Series, which was reviewed in an earlier issue of *SAFETY EDUCATION*. The book is for the seventh graders and contains six units: Growing Up; Understanding Yourself; Getting Along with Others; Growing Up Healthfully; Growing Up Safely; and Growing Up in a Safe, Healthful Community.

The book's characters meet situations, have thoughts, questions and problems which are what any child of 12 to 13 would feel or encounter.

There are "Things to Think About" and "Things for You to Do" sections at the end of each unit.

The unit on safety includes: traffic, home, school and community safety; as well as contributing components, such as emotions and accidents, safe use of tools, keeping accident records by adolescents, and main causes of accidents.

LET'S LOOK AHEAD. Elizabeth Sherman. 28 pp. Illustrated. Chicago, Ill.: Childrens Press, Inc. 1950. \$1.00. (Special library binding—\$2.00.)

Designed for pre- and early elementary school children, this book is composed entirely of basic, everyday safety reminders. A full-page colored picture from the National Safety Council's Calendar Contest accompanies each of the 12 lessons, which are presented in large, easy-to-read type. Lois Fisher has illustrated each type page and the inside front and back covers.

Topics covered are: use of umbrellas, danger of showing off (wagons and bicycles), handling pets, picking up for safety (toys), safe swimming, traffic signals, helping mother, school safety (stairs, patrols, etc.), fire safety, ice and snow (skidding cars), ice skating, looking ahead all year for safety.

WILLIE, THE SAFETY RABBIT. W. C. Yeager. 61 pp. Illustrated. Sioux City, Ia.: Beacon Press. 1950. By mail, postpaid, direct from author and autographed—\$1.00. Quantity prices may be obtained direct from author, 3800 Garretson Ave., Sioux City, Ia.

Through the wisdom and experience of Mamma Rabbit, Willie learns how to grow up safely. He learns in a series of 15 stories which are written to be told

Safety Education for September, 1950



Are YOU using the new TRAFFIC LIGHT INSTRUCTOR

Leading Schools in over 38 states now use this effective teaching aid

Writes a leading safety authority, "Really a must for simulating true traffic situations in the classroom. Helps develop skills—and the children love it, too! Ideal for kindergarten and elementary grades, as well as high school and professional driver training courses. Here's why:

1. A miniature traffic signal just 4 feet high.
 2. Foolproof, all-metal construction. Heavy base keeps light upright.
 3. Shatter-proof plastic lenses make light safer.
 4. Ready to use. Completely assembled; plugs into any 110 volt A.C. outlet.
- Place your order NOW! Specify model desired. Model 9 has standard red-yellow-green lighting cycle; Model 12 wired for special local requirements, priced slightly higher.

New Safety Teaching Manual Free to qualified personnel. Write on your official letterhead.

SCHOOL SAFETY LIGHT CORP.
214 Schofield Building
Cleveland, Ohio

Order by Mail
Model 9—Shipped Assembled and
Ready-to-use. F.O.B. **\$24.75**
Cleveland, Ohio



for SAFETY PATROL EQUIPMENT

Send for new circular of Sam Browne Belts, Arm Bands, Badges, Safety and School Buttons.

We can furnish the Sam Browne Belts in the following grade—adjustable in size. The "Bull Dog" Brand Best Grade For Long Wear White Webbing 2" wide of \$15.00 Per Doz. \$1.50 each small lots.

3 3/4" ARM BANDS

Celluloid front—metal back. Web strap and buckle attachment.

No. 33 Blue on white stock design JUNIOR SAFETY PATROL.



No. 44 Green on white

SAFETY COUNCIL PATROL UNIVERSAL SAFETY

with 100s Patrolman or Captain
Per Dozen \$5.00 Lots of 50 20c each
Lots of 25 30c each Lots of 100 25c each

PATROL BOY RAINCOATS AND HELMET SETS

Dull finish black rubber, sizes 6 to 16.
Safety Patrol Caps made to order. Blue, Black and Red.

Write for our Safety Patrol Circular

OUR RECORD 58 YEARS

AMERICAN BADGE COMPANY

224 West Hubbard corner La Salle, Chicago 18, Ill.

TRADE PUBLICATIONS

The following publications are intended for the guidance of those responsible for the purchase of equipment to promote safety in the school. The coupon below will bring FREE to responsible school personnel any or all of those listed.

1. **Dental Hygiene:** Illustrated booklet in story form, designed to teach children the proper care of teeth and gums. Appealing, easy to read, may be used by teachers for instruction purposes as well as by students. American Dental Association.
2. **Portable Traffic Control:** An illustrated pamphlet setting forth information about a portable safety signal for use at school crossings. Battery powered, on rubber tired wheels for easy moving. Flashing amber lights warn motorists in any kind of weather. American Safety Signal Corporation.
3. **Video-graph Presentation Board:** A brochure of information on a new principle applied to an old technique. Makes anyone an effective speaker by combining principle of blackboard and flip-over chart. Useful in schools for teaching safe driving, also for use in investigating accidents. Florez, Inc.
4. **"Over-All Lighting":** A well-illustrated booklet describing advantages of "Over-All Lighting," a service based on a complete line of lighting units, engineered, and manufactured to exacting standards. Consultation available for specifications and proper lighting of any type building. F. W. Wakefield Brass Co.
5. **Approved Playground Equipment:** An illustrated brochure showing different types of playground equipment, with description of construction materials used. Includes information on swimming pools, dressing rooms, picnic grill, sports areas equipment. American Playground Device Company.
6. **Safety Patrol Equipment:** A catalog illustrating many different types of safety patrol equipment for schools. Includes caps, badges, patrol belts, raincoats with sponsor's name, caution flags, and other equipment, including winter and rain wear. Graubard's, Inc.
7. **School Equipment:** Complete catalog of school supplies, including books, teaching aids. Some of the items illustrated are lockers, seating, equipment for playgrounds, and classroom supplies. Many items shown. Beckley-Cardy Co.

SAFETY EDUCATION

SEPTEMBER, 1950

20 N. Wacker Drive, Chicago 6, Ill.

Please have sent to me the publications checked.

1	2	3	4	5	6	7
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Name

Title

School

Address

City

to primary pupils by their teacher. For each story Mamma manages to bring in a safety lesson while showing Willie various phases of good rabbit living. Every story is followed by a safety jingle and illustrated by Joyce O'Connor.

MAIM STREET. 30 pp. Illustrated. Hartford, Conn.: The Travelers Insurance Companies. 1950. Free.

Maim Street is this year's title of the Travelers' annual publication containing accident statistics and amusing cartoons showing driver and pedestrian failings.

SPEED! PUBLIC ENEMY NUMBER ONE. 14 pp. T. Elmer Transue. Harrisburg, Pa.: Department of Revenue, Bureau of Highway Safety, Commonwealth of Pennsylvania. 1949.

The author, who is director of the Pennsylvania bureau of highway safety, presents "a realistic approach to the rural highway traffic death problem."

He assembles figures and facts and cases about the problems which, to say the least, are anything but a dull listing of data. Rather, the reader's attention is held until the end of the book. This effect is achieved by the author's "I'm-talking-to-you" method of writing, plus the reader's knowledge that he does know whereof he speaks.

AUTOMOBILE MECHANICS FOR VOCATIONAL HIGH SCHOOLS. Curriculum Bulletin No. 3. (A syllabus.) 187 pp. Illustrated. Brooklyn, N. Y.: Board of Education, New York. 1948-49 series.

In the various topics and teaching points covered, safety is one of the important objectives, which include safe work habits; proper use and care of hand tools and equipment; safe use of welding equipment, automotive electrical units and devices.

Classroom instruction and behind-the-wheel training are part of the course. There is a special section on safety instruction in auto shop and safety instruction in procedure and an examination.

The appendix lists pertinent films and filmstrips, a bibliography, list of manufacturers, shop layouts, and all of the book's illustrations.

DEFY DRIVING. Milton D. Kramer. 44 pp. Illustrated. Dearborn, Mich.: Ford Motor Co. 1950.

Dr. Herbert J. Stack, director of the New York university's Center for Safety Education, says:

"Today's major challenge on our highways is the development in drivers of good attitudes. *Defy Driving*, specifically designed to aid in meeting this need, is the first pamphlet of its kind. While its content will be of interest and value to all who drive, it is directed, in the main, to improving the attitudes of the young driver. It includes appraisals of individual understandings and attitudes and provides basic motivations for safety-at-the-wheel, particularly for students enrolled in driver education courses in high schools."

MAGAZINES — various publications recently received containing articles of current interest on safety.

SAFETY IS A SELF-HELP FARM PROGRAM. *COUNTRY Gentleman*. p. 160. June, 1950.

STOP HIGHWAY "TEENHEIM." *Sherwyn M. Woods Look*. p. 126. June 6, 1950.

TUNE UP THOSE BIKES FOR SUMMER. *Gil Travis Better Homes and Gardens*. p. 18 ff. June, 1950.

The dress that needn't have been so beautiful

THERE'S NO REAL REASON for a girl to have the most beautiful dress in the world. Even my daughter Sally. Even if she has her heart set on it.

But—I bought it. And when I paid the bill, I whistled! Partly with the well-known father's bill-shock. Partly for happiness. Because, Sally was right—there never was a prettier dress to get married in.

It's times like that—when we can buy something really important even if it is a luxury—that I feel lucky!

I know the luckiest day of my life was when I signed up to save regularly through the Payroll Savings Plan at the office. I'd tried every which way to save before, but, brother, this *automatic* way is the only way that works—for you—all the time!

Buying U. S. Savings Bonds... whether by the Payroll Savings Plan or the Bond-A-Month Plan... is the safest, "foolproofest," easiest method of saving since money was invented. And every \$3 you invest will turn into \$4 in just 10 years.

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use **MERCUROCHROME**

for first aid

Do not neglect wounds, however small; even scratches and small cuts may become infected if they are not properly treated.

'Mercurochrome' (H. W. & D. brand of merbromin, dibromoxymercurifluorescein-sodium) is one of the best antiseptics for first aid use. It is accepted by the Council on Pharmacy and Chemistry of the American Medical Association for this purpose.

The 2% aqueous solution does not sting and can be applied safely to small wounds. Children do not hesitate to report their injuries promptly when 'Mercurochrome' is the household antiseptic, because they know that they will not be hurt. Other advantages are that solutions keep indefinitely and the color shows just where it has been applied.

Doctors have used 'Mercurochrome' for more than 28 years.

Keep a bottle of 'Mercurochrome' handy for the first aid care of all minor wounds. Do not fail to call a physician in more serious cases.

* Reg. U. S. Pat. Off.



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